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THE INDEX OF INDUSTRIAL PRODUCTION

METHOD OF COMPILATION

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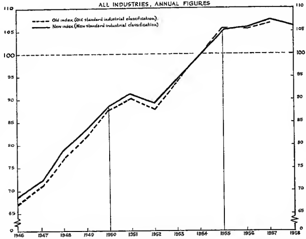
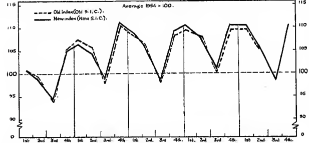
INDEX OF INDUSTRIAL PRODUCTION

1954=100

ALL INDUSTRIES, ANNUAL FIGURES



ALL INDUSTRIES – QUARTERLY FIGURES.



Introduction

1. When the detailed results of the full Census of Production for 1954 became available in 1958 it was decided that the index of industrial production based on 1948 (¹) should be re-based on 1954 for the following reasons :

(a) The Standard Industrial Classification (²) had undergone extensive revision in 1958.

(b) The index was already covering a lengthy period (1948-1958) and the next opportunity for revision would not occur until the results of the full Census for 1958 became available.

The results of the Census for 1954 were therefore used as a guide to the selection of representative production series for the different industries and to provide weights to combine the series into a new index of industrial production based on 1954.

2. In its purpose and general structure the new index does not differ from the one it replaces. In the new index, weights based on the results of the full Census for 1954 have been substituted for those previously based on the Census for 1948. Use has been made of a number of new and improved production series to measure changes in the volume of output and it has been possible to draw on a wider range of price indices to deflate series relating to the value of production ; finally, industries have been classified and grouped according to the revised edition of the Standard Industrial Classification.

3. It is desirable to re-weight the index of industrial production from time to time. The index is fundamentally a ratio of quantities valued at base year prices and the purpose of re-weighting is to incorporate a more up-to-date set of relative prices. Changes in the relative outputs are taken into account in the index whatever the base year; the particular year chosen as the base for weighting affects only the relative prices by means of which the different products are combined into a single index.

4. As far as possible with the available information, allowances are made as in the old index for changes in quality, for example, by using separate series for

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(¹) *The Index of Industrial Production; Studies in Official Statistics No.* 2 (*H.M.S.O., October*, 1952).
(²) *Standard Industrial Classification* (*Revised* 1958) *H.M.S.O.*

the different grades of coal, steel, textiles, etc. In addition the price indices used for deflating value series include adjustments for quality changes wherever possible. From time to time, modifications are also made to the index to allow for new products introduced since the base date. It is admittedly difficult to make full allowance for these factors, but past experience shows that those which are not taken into account are unlikely to have an appreciable effect on the total index in the relatively short span of years before the index is next revised and re-weighted.

5. The new index will continue to be compiled on the present basis, subject to minor modifications as changing circumstances demand, until the results of a full Census indicate the need for re-weighting, but even if re-weighting is not demonstrably necessary, it will probably be undertaken not less frequently than every ten years as a precautionary measure in accordance with accepted practice.

6. The index has been prepared by the Central Statistical Office in collaboration with the Statistics Divisions of the Board of Trade, the Ministry of Works, the Ministry of Power, the Ministry of Agriculture, Fisheries and Food, the Ministry of Supply, the Admiralty and other Departments. Its effectiveness as an economic indicator is dependent upon receiving regularly and promptly a very large volume of output statistics, and the help received from firms and trade associations in providing these statistics is gratefully acknowledged.

Object and definitions

7. The purpose of the index number is to reflect changes in the volume of industrial production in the United Kingdom. The index covers mining and quarrying, manufacturing, construction, and gas, electricity and water (Orders II to XVIII in the Standard Industrial Classification, revised 1958) but excludes agriculture, forestry and fishing. It also excludes distribution, transport and finance and all other public and private services. It covers production in private firms, nationalised industries and other public bodies, and central and local government establishments. The index relates to production in the United Kingdom of both capital goods and consumption goods, whether they are for the home market, for export or for the armed forces.

8. Ideally, the amount of " work done " in an industry ought to be measured as the difference between its " output " of products and its " input " of materials, products and services from other industries, adjusted for changes in stocks held of materials and partly finished goods. In practice it is impossible to get figures of output, input and stocks monthly for each industry. In one or two cases,

figures of both output and input are obtainable, but usually changes in either output or input have to be taken as measures of changes in the amount of work done. Figures of output are the more frequently available.

9. For most industries in normal times such figures can be taken as satisfactory measures of the amount of work done. Only in abnormal times as, for example, when industry is being converted to or re-converted from a wartime basis does the output of goods (or the input of materials) cease to be a reliable indication of its industrial activity.

10. For industries making products which take a long time to complete, it is desirable to attempt, if sufficient information is available, to measure directly the amount of work being done each month. It has been possible to continue to do this in the indices for construction and for naval and merchant shipbuilding.

11. In the absence of figures of output or input, use can be made of labour employed or man-hours worked. Both these measures must be used cautiously in periods when productivity is increasing or when workers are under-employed. In preparing the new index the decision as to whether figures of labour employed or some other indicator should be used for each industry has been made on their relative merits. In only a few instances has it been found necessary to continue to use figures of labour employed instead of incomplete figures of either input or output.

12. Thus in the majority of the industries covered, changes in the amount of work done are assumed to be proportionate to changes in the output of their products; less frequently they are assumed to be proportionate to changes in the input of materials and still less frequently to the changes in labour employed.

13. The index is a weighted arithmetic average of quantity relatives computed according to the Laspeyres formula, with 1954 as the base year (monthly average in 1954 = 100). For any month, the production of each commodity is expressed as a percentage of its average monthly production in 1954 and the results for all commodities are then combined in a weighted average. The weights used are proportional to the value of work done in each industry as shown by the Census of Production for 1954.

14. The index aims at comparing the level of production in different months and corrections have been made for the fact that calendar months do not all contain the same number of days. Some contain four and others five Sundays or Saturdays when production is likely to be lower than on other days of the week. The consequences of irregularities of the calendar have, so far as

possible, been eliminated, so that in effect the index compares the average weekly rate of production in different months. Account has been taken of the number of days per week usually worked by different industries so far as these are known.

15. The index reflects changes in production resulting from holidays and other causes of seasonal variation for which no adjustments have been made. Additional indices, however, have been prepared for the total of all industries and for total manufacturing industries which have been adjusted for holidays and other causes of seasonal variation.

16. The new index has been calculated monthly from January, 1954. Annual indices have been calculated from 1946 but, as some of the series and price deflators incorporated in the index are not available for earlier years, indices for the years prior to 1954 had to be compiled using, perforce, less comprehensive data.

17. To facilitate comparison with other official statistics, the arrangement of industries follows the Standard Industrial Classification (revised 1958). Separate sub-indices are calculated for each major branch of the manufacturing industries. As before, the methods used in computing and presenting the index follow closely those recommended by the Statistical Commission of the United Nations, so that comparison with the index numbers of production of other countries should be facilitated.

Production series

18. The index incorporates about 800 individual series having separate weights ; 640 represent the civilian sector of the economy and 160 represent the production of specialised defence equipment. The old index incorporated about 1,300 series, 600 representing the civilian sector and 700 representing defence ; the large number of items in the defence sector is attributed to the fact that the old index was prepared at the time of the Korean War.

19. A list of the series now being used, classified by industry, is given in Appendix II. A few of them relate to production in Great Britain but the majority relate to the United Kingdom. From time to time the collection of particular series is abandoned and the collection of other series (including some relating to new products) is started. Occasionally series are amended in scope, unit of reckoning or period of collection. Accordingly, with the passage of time, the series used in compiling the index will, to some extent, progressively depart from the list and the descriptions given in Appendix II.

20. An unusually large change in the series used in compiling the index took

place in January, 1958 when a more comprehensive set of statistics covering the greater part of the engineering and electrical goods industries (Order VI in the Standard Industrial Classification) became available(¹). Their incorporation in the index inevitably caused some difficulty in preserving continuity in the indices for Order VI which, up to the end of 1957, are based on the old set of production statistics. In view of the size and importance of this change the series used in Order VI up to December, 1957 are shown in Appendix II in the same detail as the series used from January, 1958. The new index for Engineering and electrical goods is described in Appendix IV.

21. In Table 1 the series at present used to measure changes in output in the whole field of industrial production as defined above are shown to account directly for about 90 per cent. of total industrial output in 1954. Statements about the extent of industry directly accounted for by series are, however, apt to be misleading unless accompanied by some explanation of how they are obtained. In the case of Table 1 the estimates were obtained in the following way:

(a) Where an industry is represented by one or more series of output of its main products, the value of the gross output of these products in 1954 was expressed as a percentage of the total gross output of the industry as shown by the Census of Production for 1954.

(b) Where an industry is represented by one or more series of the input of materials or labour, it generally had to be reckoned that 100 per cent. of the work done was accounted for.

Since five-sixths of the industries covered by the index are represented by output series, the favourable treatment accorded to the relatively small number of input series does not greatly reduce the significance of the estimates. Nevertheless, it can be seen that on this basis of reckoning, higher proportions of industry accounted for could always be obtained by substituting input series for output series wherever possible. Even in the coal mining industry, the tonnage of coal mined represents only 97 per cent. of total output whereas, for example, the number of persons employed or the consumption of pitwood would represent 100 per cent. The value of total sales (all products) would also represent 100 per cent. of the output except in those cases where the industry had done work on its own capital account. In spite of the reduction in the use of employment series with their 100 per cent. cover, the series in the new index directly account for about 90 per cent. of the work done in the industrial field against an estimated 85 per cent. coverage in the old index.

(¹)*See "A New Scheme of Engineering Statistics". Board of Trade Journal, 8th May, 1959.*

Proportion of industry directly accounted for by series used

TABLE 1

Standard Industrial Classification Order	Industrial group	Percentage of industry accounted for(1)
II	Mining and quarrying	95 (95)
III	Food, drink and tobacco	90 (90)
IV	Chemicals and allied industries	70 (65)
V	Metal manufacture	95 (90)
VI	Engineering and electrical goods	95 (70)
VII	Shipbuilding and marine engineering	100 (100)
VIII	Vehicles	90 (85)
IX	Metal goods not elsewhere specified	90 (60)
X	Textiles	95 (90)
XI	Leather, leather goods and fur	95 (95)
XII	Clothing and footwear	90 (90)
XIII	Bricks, pottery, glass, cement, etc.	70 (70)
XIV	Timber, furniture, etc.	95 (95)
XV	Paper, printing and publishing	95 (95)
XVI	Other manufacturing industries	95 (90)
XVII	Construction	100 (100)
XVIII	Gas, electricity and water	90 (90)
II—XVIII	All above	90 (85)

(1)*Comparative figures for the* 1948 *index are shown in brackets.*

22. The nature of the 800 series used can be judged from the following table :

	No. of series	*Percentage of weight carried*(1)
Output		
Quantities delivered or produced	640	48·1 (55·2)
Value of deliveries or sales	100	35·6 (26·5)
Input		
Quantities of major materials received	53	13·7 (11·7)
Number of persons employed	7	2·6 (6·6)
	800	100·0

(1)*Comparative figures for the 1948 index are shown in brackets.*

Thus the index continues to rely chiefly on series of physical output. The fact that it is not always possible or even desirable to use this type of series is brought out in the following paragraphs.

23. **Use of value series.** Value series have the important advantage of providing a measure of output for industries whose products are so varied in range

or specification that no suitable units for measuring output in physical terms are available. In certain circumstances value series can also reflect changes in the amount of work done due to changes in the quality of the product. Value series are the only way of measuring much of the output in the engineering and construction industries, and most of the value series used in the index relate to these two important industrial groups.

24. The problem thus becomes one of finding satisfactory methods of eliminating the effects of price changes. In preparing the new index it has been possible to draw upon a wider range of price indices for this purpose. From 1954 onwards use can be made of the new series of wholesale price indices which had not been compiled in 1948, and in consequence it has been possible to employ more appropriate deflators in the new index and to increase the usage of series relating to the value of output.

25. The decision to use deflated value series in the index to avoid the difficulties of measuring certain products in physical terms or of taking quality changes into account implies that the complementary problems of pricing difficult products or of allowing for quality changes have been solved in the compilation of the price index. There is also an implicit assumption that the average price quotation for a commodity throughout a period is close to the average price per unit at which the total amount was sold in that period. Finally, in the case of a commodity group such as pharmaceutical preparations any change in the pattern of production may cause the base weighted price index to become inappropriate. It would be unreal to suppose that all price indices were perfect instruments for the purpose of deflating value of output series, although every effort is made to make them so.

26. There are two main alternative methods of deflating value of output series which can be used where indices of the prices of finished goods are not available. One is to combine price indices for the appropriate raw materials with an index of wage rates or earnings so as to form an index of production costs. Experience has shown, however, that this method is not altogether satisfactory. For example, in the years immediately following the war when the demand for the relatively scarce products of manufacturing industry was forcing up their prices rapidly, labour and material costs were lagging behind. On the other hand, with the relative scarcity of raw materials which was experienced after the outbreak of war in Korea, costs showed some extraordinary rises and fluctuations which were not reflected to the same extent or at the same time in the prices of finished goods. Furthermore, a cost index which incorporates changes in average wages per unit of time does not take full account of changes in the productivity of labour. This drawback is less important in

those series which measure research and development effort in the aircraft and electronics industries where significant changes in labour productivity are not to be expected because of the nature of the work; this method is therefore used in these cases. In the construction industry a more elaborate cost index which takes account of labour productivity and profit margins has been used(¹).

27. The second alternative method is to apply to the value of output an index of the average values or prices of the exports of the product. Except in the years before 1954, it has not been necessary to use this method in the new index because the new series of wholesale prices has become available. An export price index can be used only on the assumption that prices in the home market keep in step with export prices, which may not be the case. Nevertheless this method was formerly used to deflate the value series of those sections of the engineering industry for which special indices of the prices of the manufactured products were not available; a two months' time lag was allowed to cover the interval between the invoicing of the goods and their shipment from the ports, thus the average value of exports in the twelve months March, 1951 to February, 1952 was taken as typical of the prices ruling in the calendar year 1951.

28. Use of **input of materials.** The most satisfactory input series are those giving the quantities of materials actually consumed in the industry. In practice these are not always obtainable and, instead, series relating to receipts or despatches of materials for use in the industry have to be used. Such alternative series may not be very reliable guides to monthly changes in the amount of work done, particularly when the industry can hold substantial stocks of raw materials. In some cases, it is even necessary to use despatches or imports of materials for general use in the country to represent consumption in the industry which is the main user of these materials. Nevertheless, input is not always inferior to output as an indicator of the volume of work done. For example, in the grain milling industry which produces both flour and offal, the input of grain may be a better indicator than the output of flour owing to the variations that can take place in the rate of extraction.

29. In some industries the products may be so heterogeneous that, unless value figures are available, no adequate measure of output can be obtained. The fabricating of rubber and paper articles and the moulding and fabricating of plastics are examples of such industries for which it is safer to use figures of consumption of raw materials. In the new index this method has been used for the greater part of " Metal goods not elsewhere specified " to avoid using the limited number of output series available which cannot be relied upon to be representative of the Order as a whole. In all these cases, however, the

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(¹)*See "New Index of the Cost of Building and Civil Engineering Work". Board of Trade Journal, 12th May,* 1956.

amount of work done per ton of material consumed may vary considerably from product to product, and since input cannot always be allocated to each type of product no provision can be made for changes in the proportion in which the different products are made.

30. Input of raw materials has been used most extensively in "Food, drink and tobacco", "Metal goods not elsewhere specified", "Paper, printing and publishing" and "Other manufacturing industries". The percentage of weight carried by the materials input series in the new index is about 13·7 against 11·7 per cent. in the old index.

31. Use of **employment** series. In general, monthly employment figures relate to the number of persons on the pay rolls towards the end of the month and take no account of holidays, absenteeism or of short-time or overtime worked. They do not reflect changes in the number of man-hours worked and do not allow for changes in output per man-hour. For the very few industries for which employment indicators have been retained in the index no adjustment has been made for changes in these two factors (the index for shipbuilding and ship repairing and marine engineering dealt with in Appendix IV may be considered an exceptional case). In industries dealing with repair and jobbing work productivity changes due to technical progress may be expected to be negligible over a comparatively short period, although there may be considerable variations in both man-hours worked and in output per man-hour due to changes in the flow of orders received. In other industries where appreciable secular increases in productivity due to technical causes are to be expected a correction for this factor should be made; it is, however, no easy matter to obtain reasonably accurate measures of labour productivity. In the new index the difficulty has been very largely avoided by using indicators other than employment series wherever possible.

32. Before being used in the unadjusted index, employment figures have to be corrected to reflect the loss of production due to holidays, which are the greatest single cause of month to month fluctuations in the level of production. Taking twenty-four as being the normal number of working days in a month, a loss of two working days has been assumed for the month containing Easter, one for the month containing Whitsuntide, three for July, four for August and two for December, a total of twelve working days a year. This allowance appears to be broadly in accordance with the variations in production due to the holiday factor in industry as a whole.

Weighting

33. The weights given to each industry are based in principle on the values of net output (before deducting depreciation) in 1954. The net output of an

industry may be briefly defined as the selling value, at factor cost, of services, finished goods and partly finished goods produced by that industry during the year (that is, the gross output), less any costs incurred in their production which are payable to other industries, the costs comprising the value of materials, fuel and electricity used, amounts paid for work given out, and amounts paid for services. Thus net output (in contrast to gross output) excludes work done outside the industry.

34. The estimates of net output are based on the figures in the Census of Production for 1954 which have been assumed to relate to the calendar year 1954. The Census figures, however, have been adjusted in a number of ways:

(a) *Net output.* The definition of net output in the Census includes amounts paid for services rendered by other industries. The Census Reports for 1948, however, showed separately for the majority of industries those payments made for repairs, hire of plant, advertising, research work, postage, insurance and local rates (excluding water rates). This does not exhaust the list of services for which payments are made to other industries but it probably covers the most important items. For each industry the ratio of these payments to Census net output in 1948 was established; the ratio was assumed to hold good for 1954 and a deduction was made from the Census figures of net output in 1954 in order to exclude services rendered by other industries from the weights to be used in the new index of industrial production.

(b) *Industrial classification.* A number of adjustments to the Census figures were necessitated by the fact that the new index of industrial production is based on the recently revised (1958) edition of the Standard Industrial Classification which reduces the field of industrial production by about 3 per cent. (in terms of net output) in the base year and re-defines and rearranges some of the industries remaining in the field.

(c) *Industries not covered by the Census.* Figures were estimated for one or two industries not fully covered by the Census; these included mining and quarrying in Northern Ireland and the manufacture of the products of atomic fission or fusion in Great Britain. Otherwise, no special additions had to be made either for Northern Ireland or for small establishments since the summary table in each Census of Production Report for 1954 gives estimates covering all firms in the United Kingdom.

35. After deriving the net output for each Census industry, it was often necessary to apportion it over several products within the industry in order to provide appropriate weights for each. Where a sufficient number of larger establishments (that is, establishments employing more than 10 persons) specialises in the production of one or another of these products, the Census for 1954 gives

figures for the gross and net output of each group of specialists. As the total gross output of every major product of the larger establishments is given in the Census, it could be readily ascertained what proportion of the gross output of a product was accounted for by those establishments specialising in making it. The net output figures could then be estimated for each of a large number of individual products by multiplying the net output of the specialist group by the ratio of the gross output of the product by all larger establishments to the gross output of the specialist group making it, afterwards making an allowance to include the small firms. Where it was not possible to do this, the net output of a whole industry had to be apportioned among its several products in proportion to the values of their gross outputs. This was not always a satisfactory alternative and, in a number of cases, allowances had to be made for factors which would clearly cause the products to have differing ratios of gross to net output.

36. While the principal products of the establishments in an industry are those which are normally associated with that industry, the subsidiary products are sometimes those which are associated with other industries. Thus some establishments in the bread and flour confectionery industry make biscuits together with their principal products, while some establishments in the biscuit industry make flour confectionery together with their principal products. Blast furnaces make gas as a by-product and the net output of blast furnaces represents work done in making both pig iron and gas. Weights, therefore, which are on an industrial basis are not the exact counterparts of the production series which are mainly on a commodity basis of classification. Ideally, most industry weights would need a small addition to cover that part of the principal products made outside the industry and a small deduction for the subsidiary products and by-products which are the principal products of other industries in order to bring them on to a pure product basis. These possible adjustments are usually negligible but in the case of iron castings it was felt worth while to make one.

37. Iron castings are the principal product of the iron foundry trade but the production series includes a substantial contribution from various branches of the engineering industry. The weight for iron castings is therefore derived from various Orders and the whole of it given to Order V, Metal manufacture:

		Net output £ *million*	*Weight* *per* 000
Order V	Metal manufacture (M.L.H. 313) ..	76·1	9·80
Order VI	Engineering and electrical goods (M.L.H. 331-349)	20·0	2·58
Order VII	Shipbuilding and marine engineering (M.L.H. 370)	1·0	0·13
Order VIII	Vehicles (M.L.H. 381)	5·0	0·64
		102·1	13·15

38. The net output as calculated for each Order of the Standard Industrial Classification and the weights used for each industry or product are given in Appendix II. In a number of instances the weights for adjacent production series have been combined to avoid the possibility of disclosing secret or confidential information.

39. One practical difficulty in the compilation of index numbers of industrial production is how to deal with industries or branches of industries for which weights but no current production series are available to measure output. Except in Mining and quarrying, the difficulty can be met for industries covered by a Minimum List Heading in the Standard Industrial Classification by using employment figures as indicators, and, in the few cases where no alternative series is available to represent a Heading, employment figures have in fact been used. There is a special difficulty, however, where certain parts or sub-divisions of a Heading are covered by production series (other than employment series) while others are not. In these cases the alternatives are:

(a) to sacrifice the production series available for part of the Heading and to use employment figures for the whole Heading. For example, locomotives and railway track equipment (Heading 384) is adequately covered by a production series for the manufacture of new locomotives and is partly covered as regards railway track equipment but there is at present no series to cover the large amount of repair work done in the industry; in consequence the whole heading is represented in the index by an employment indicator;

(b) to make some combination of both the employment and production indicators available. It is impossible to justify this alternative. It was used in one Heading only (scientific, surgical and photographic instruments) in the old index of industrial production but it was found that no manipulation of the weights used to combine the employment figures with the production indicators for the Heading could have led to satisfactory results;

(c) to omit the weight for the uncovered portion of the Heading from the index number altogether, thus satisfying equally the two alternative assumptions that changes in the output of the omitted item move in sympathy with the index as a whole, and that the index applies only to part of the industrial field. Omitted items, however, cannot be relied upon to behave normally and, as this alternative is liable to become unsatisfactory, it has not been adopted in any instance in the new index;

(d) to attach the weight for an item to the weight for another item (whether in the same or in another industry) whose activity may be expected to be correlated with the output of the uncovered item. To mention only one of the very large number of instances, this is the implicit assumption in coal mining where the output of deep-mined coal is used to reflect the output of the very small percentage of miscellaneous minerals and other products of the industry. More explicit examples are jewellery, plate and the refining of precious metals (Heading 396) which is represented by sales of jewellery and plate only, and soap, detergents, candles and glycerine (Sub-heading 275/2) which is represented by soap and detergents only. The few cases where the weight has been transferred to an entirely different Minimum List Heading include parts of the textile finishing industry (Heading 423) which have been transferred to the woollen and worsted industry (Heading 414) and the hosiery and other knitted goods industry (Heading 417) respectively; and made-up textiles (Heading 422) which has been transferred partly to the weaving of cotton, linen and man-made fibres (Heading 413) and partly to jute (Heading 415);

(e) to share an unattached weight among a group of industries which collectively might be expected to experience similar activity. The arrangement and groupings of industries in the Standard Industrial Classification are particularly useful for this purpose. This has been done up to December, 1957 with other mechanical engineering (Sub-heading 349/3) which has been assumed to move with the mechanical engineering Headings 331 to 349/2, and with miscellaneous electrical goods (Sub-heading 369/5) which has been assumed to move with the electrical engineering Headings 362, 364 and 365. The total weights involved in this alternative never amounted to more than 1½ per cent. of the total.

40. The fact that the problem of unattached weights arose only in connection with sub-divisions of industries reduced its importance considerably. In cases where it did arise, each unattached weight was treated on its merits. The solution quoted above in paragraph 39 (d) usually seemed to be the least unsatisfactory but, having regard to the special character of one or two industries, the solutions quoted in paragraphs 39 (a) and 39 (e) seemed more appropriate in these cases.

Computation and adjustments

41. Most of the 800 series used in the compilation of the index are for calendar months or for periods of four and five weeks. These, together with weekly and quarterly series, are used to measure variations in the volume of production

during the year. In the old index a certain number of annual series were also used to assist in getting a better indication of the trend of output since the base year, but with the wider range of statistics now available it has been possible to dispense with them.

Time interval	*No. of series*	*Percentage of weight carried*(¹)
Weekly figures and weekly averages of periods of four and five weeks	100	27·0 (27·0)
Calendar months	545	47·3 (35·1)
Quarters (without alternative series for shorter intervals)	85	18·5 (24·5)
Quarters (with alternative series for shorter intervals)	70	7·2 (—)
Years (without alternative series for shorter intervals)	—	— (2·7)
Years (with alternative series for shorter intervals)	—	— (10·7)
	800	100·0

(¹)*Comparative figures for the 1948 index are shown in brackets.*

42. Since the purpose of the index is to show monthly changes in the volume of work done, the "months" are made equal in length to facilitate comparison, and the series for the different time intervals need adjustment before they can be incorporated in the index.

43. **Adjustment to eliminate variation in the length of calendar months.** Calendar months do not all contain the same number of days, and the number of days on which it is the normal practice of firms in different industries to work each week also varies. Adjustments have been made to calendar monthly series to eliminate the effect of such variations as follows:

(a) Industries have been classified according to whether they work 5, 5½, 6 or 7 days a week. It is not unusual to find that, in the same industry, some of the firms work 5 days a week and some 5½, and in all cases of doubt as to the more common practice, a week of 5½ days was taken as representative.

(b) For each industry, the total number of working days in the base year 1954 was determined, no allowance being made for public and annual holidays. One-twelfth of this total was taken as a "standard" month for each industry.

(c) In preparing the current index, the monthly production figure for each commodity is multiplied by the ratio of the number of working days in the standard month in 1954 to the number in the current month, and then expressed as a percentage of the average monthly production in 1954.

An index for a standard month obtained in this way is equivalent to one representing the average weekly rate of production in the month, and can therefore be combined with indices based on weekly averages.

44. The only monthly figures not requiring adjustment in this way are those relating to numbers employed. Such figures relate to the number on the pay roll in a particular week towards the end of each month and are therefore neither influenced by the length of the month nor by the number of days normally worked per week. Employment figures, however, require adjustment in another way. Other types of production series are affected by public and annual holidays while employment figures are not affected. To bring employment series into line with other types, an allowance has been made for holidays in the manner described in paragraph 32.

45. Weekly figures are usually received in the same form as the weekly averages which are for periods covering four, four and five weeks successively, this pattern being continued throughout the year so that each average approximately represents the weekly average for a particular calendar month. The small number of figures received weekly are converted into weekly averages while the few which cover four-week periods throughout the year have to be converted into four, four and five-week periods by simple proportion before the weekly average is derived. Given the weekly average, no further adjustment is made. The fact that the period averaged does not coincide exactly with the calendar month it represents is normally of little consequence, but there is always the possibility, for example, that the average of a period of five weeks might cause a shift in the effect of some special event such as the Easter holidays from one month to another whenever it occurs at the end of a previous calendar month or at the beginning of a succeeding calendar month. No corrections are made to adjust the figures for such unusual occurrences in the ordinary index of production but they are taken into account in the seasonally adjusted figures described in paragraphs 56 to 62.

46. Quarterly figures require two adjustments. Firstly, they are adjusted so as to eliminate the effects of variations in the number of days in each quarter in the same way as has been described for calendar months. Then secondly, they are reduced to yield three separate monthly figures by taking account of public and annual holidays in each of the three months of the quarter. Except where the circumstances are known to be different, the number of days taken as

holidays is assumed to be as follows: Easter two days, Whitsuntide one day, July three days, August four days and December two days. Apart from the allowance made for holidays, therefore, each month is deemed to be one-third of the quarter containing it. For the index as a whole this method does not cause any appreciable disturbance in the trend produced by monthly figures, and any slight effect it may have is moderated by the fact that while most quarterly series cover calendar quarters a few cover other periods, that is, December to February, March to May and so forth or November to January, February to April and so forth. Exceptionally, a few quarterly series in the food group are spread over the months in proportion to monthly figures which were available for certain earlier years only; the chief reason for doing this is that these items show considerable seasonal movements.

47. Quarterly, six monthly and annual data cannot be used to reflect actual monthly movements in output, but where sections of industry are not otherwise covered by monthly or weekly series long period series can be used to keep the annual index numbers in their proper relationship with the base year. In the old index over 10 per cent. of the weight was carried by annual series but in the new index none of the weight is carried by series covering intervals longer than quarters, and the need to revise indices for the previous months following the receipt of data covering long periods is accordingly lessened.

48. Annual indices are normally calculated by averaging the indices for the twelve months of the year. This produces a result which differs from indices based on annual production figures for two main reasons:

(a) Years do not all contain the same number of working days and many annual production figures are affected by this factor.

(b) A simple average of twelve monthly indices in effect over-weights the shorter working months and the weekly averages of four-week periods as against the longer working months and the weekly averages of five-week periods.

In general the differences are small, and it is considered preferable to obtain the annual indices of production by taking the simple average of the twelve monthly indices rather than to introduce a more complicated relationship between the monthly and the annual indices.

49. **The provisional nature of indices for recent months.** All the series to be used in computing the index as listed in Appendix II will not have become available at the time the index for any month is being prepared. Much of the monthly data is not received until some weeks after the end of the month to

which they relate and, in addition, there is the special problem created by using quarterly data in a monthly index which is aggravated by the fact that quarterly data, in general, are received more slowly than monthly data. A record of the position at the end of January 1959 shows the following results :

Information received at the end of January, 1959 for		*Percentage of weight carried*
1958	December	48
	November	81
	October	83
	September	99
	August	100
	July	100

50. Compared with the old index there has been a considerable increase in the speed at which production statistics are received. Part of this is the result of faster collection and the substitution of monthly for quarterly returns and part to the more extensive use of provisional figures. Provisional figures are of two kinds; the first kind consist of estimates based on incomplete returns while the second kind consist of monthly data on a crude or sample basis subject to adjustment on the basis of more refined or more complete quarterly data. About 20 per cent. of the index is covered by monthly or weekly average data subject to quarterly adjustment.

51. The method employed to compute the index numbers for the latest months from incomplete data is as follows. The starting point for each group of industries is the last month for which complete information for that group is available. The proportionate change in production since that month is estimated from the series which are available and the weights appropriate to these series. Having the index number at the starting point and the proportionate change in production since then, an index for the group for the latest month can be estimated. There is always the possibility that the series which have not been received may move differently from those which have, and the procedure of estimating changes from the most recent month possible reduces the bias which might be introduced into the indices for the latest months by the absence of some of the data. On occasion it is necessary to introduce a further refinement ; if an important series with a marked seasonal movement is not received, an estimate is made based on its recent trend and its seasonal movement in the corresponding period of the previous year; this also tends to reduce the bias caused by delayed returns. When this procedure has been completed for all industrial groups, the results are combined into an index for all industries.

52. The practice is to publish a provisional index number about eight weeks after the end of the month to which it relates together with revised figures for the

months which precede it. The provisional index number is given together with sub-indices for the main divisions of industry and the smaller industrial groups for which sufficient data have been received. Unless about 80 per cent. of the series are available, however, the estimates for separate industrial groups are not considered firm enough to justify publication.

53. It is acknowledged that there is a demand for the most up-to-date indication of changes in the level of production as soon as it can be given. To meet this need a preliminary estimate of the total index for all industries is given about four weeks after the end of each month. This preliminary estimate, which is given in the form of a range (for example 105-106), is made by using all the series received (most of which are provisional figures) as a means of projecting the indices calculated for previous months.

54. Finally, it should be emphasised that the index of industrial production can only be firm when its component series have all been received in *final* form. Clearly, provisional figures must eventually be replaced by final figures. Moreover, from time to time, individual series undergo improvement and revision so that figures assumed to be final are revised back for several months. These adjustments and revisions necessarily lead to corresponding revisions in the index, although only the larger ones will have any noticeable effect.

55. **Indices used as production series.** Some industries are represented by index numbers, most of which have been specially computed for inclusion in the index of production. Thus the series listed in Appendix II include indices for shipbuilding and ship repairing and marine engineering, engineering and electrical goods, munitions, electronics, aircraft, clothing, leather tanning and dressing and construction. An account of these index numbers is given in Appendix IV.

Monthly adjustments for seasonal variations

56. In the index numbers of industrial production so far described, comparability between the different months has been ensured by making adjustments (where the basic figures refer to calendar months or to "months" of four, four and five-week periods) for variations in the number of days in each month, excluding for each industry those which are not normally working days, for example, Sundays and Saturday afternoons. In effect the indices compare the average weekly rates of production in the different months. They reflect, however, all changes in production resulting from public and other holidays and from seasonal factors, for which no adjustments have been made. Additional indices which have been adjusted for holidays and other causes of seasonal variations have also been prepared for the total of all industries and for total manufac-

turing industries. These series are designed to eliminate normal month to month fluctuations and thus to show the trend more clearly.

57. Adjusting for seasonal variation is more hazardous than adjusting for the varying number of working days in a month. It is to some extent dependent on judgment and interpretation and is partly based on the assumption that the seasonal pattern of recent years will recur in the year ahead. A study has been made of the month to month·variations in the index since 1954 and although it is apparent that the seasonal pattern has not been entirely regular over the years, the present pattern can be ascertained with reasonable accuracy. Since the seasonal pattern may be changing, the month to month variations have to be kept under review and each year, as another twelve months' experience becomes available, the seasonal corrections are reassessed.

58. The estimates of seasonal movement are obtained in two steps. The indices of production as published are already adjusted for differences in the number of days in each month and the first step is to estimate the movement in the indices arising from regular public holidays and from annual holidays taken in different industries. In the second stage, the indices adjusted for holidays are smoothed by a centred moving average over a twelve-month period, the average deviations from which are the measure of the remaining seasonal variation. A final adjustment is made so that the annual average of the corrected indices is equal to the average of the unadjusted indices.

59. Estimating the movement in the indices arising from holidays as a separate step makes it possible to take two factors into account and to make the necessary adjustments. The first is the movement of holidays; not only does Easter move between March and April, but the use of four, four and five-week months as accounting periods occasionally displaces holidays so that, for example, New Year's Day can sometimes fall in the December period. There is also evidence that some annual holidays are fixed according to August Bank Holiday, and firms taking the week before August Bank Holiday will, in limiting cases, be taking either the whole of the last week in July or the whole of the first week in August according to whether the first Monday in August falls on the 1st or the 7th of the month. The second factor which can be taken into account is the extent of holidays. Little direct information is available about the timing and extent of holidays actually taken but it is known that while in 1948 only 18 per cent. of index of production industries enjoyed a second week's holiday with pay, by 1954 the second week's holiday was universal. This information was particularly useful in connection with the seasonal adjustment of the old index of production.

60. In the second stage adjustment any information about abnormal movements in the index can be taken into account. Examples are the Coronation

Holiday in June, 1953, some of the larger industrial disputes, severe influenza epidemics and abnormal weather conditions such as gave rise to the fuel crisis of 1947. Two methods of dealing with such events are used; where a big loss of production is involved an adjustment can be made for the estimated loss *before* the moving average is taken; in other cases the deviations from the moving average for the months in which they occur can be disregarded or discounted when calculating the average deviations for those months. Seasonal movements are not likely to remain static over long periods and in the few observations from which the present seasonal movement must be determined abnormalities cannot be relied upon to cancel each other out. Hence in the calculation of normal seasonal movements the best course seems to be to eliminate obvious abnormalities. Some allowance could also be made for any changing seasonal pattern by discounting deviations in the earlier years for which figures are available, but this would only be done when there were some independent reasons for supposing that the seasonal pattern might be changing.

61. Each Order in the Standard Industrial Classification is treated separately to determine its adjustment factors for each month of the year. The factors are then combined into factors for the total of all industries and for total manufacturing industries. In the annual computation of these adjustments, factors are re-determined for the previous year and established for the forthcoming year so that in effect, the factors established for each year are revised once only, the revision taking place in the succeeding year.

62. The seasonally adjusted series of indices should not be regarded as in any way more reliable than the unadjusted series, and are not intended to replace them. The original unadjusted series are the measures of changes in the weekly rate of production from month to month while the seasonally adjusted series, which exclude regularly recurring fluctuations, are designed for the sole purpose of making the trend more readily discernible.

Comparison between the old and the new indices

63. The annual figures of the old index have been recalculated to conform, as nearly as possible, to the revised Standard Industrial Classification and the base has been moved to 1954. This makes it possible to compare the movements of the old index with those of the new index from 1946 to 1957. The two indices are shown in Table 2.

64. The weights of the Orders of the Standard Industrial Classification for the old and the new indices in comparable form (that is, on a 1954 base and on the revised Standard Industrial Classification) are :

	Old index per cent.	*New index per cent.*
Mining and quarrying	6·73	7·24
Food, drink and tobacco	8·35	8·18
Chemicals and allied industries	6·35	6·30
Metal manufacture	6·12	6·87
Engineering and electrical goods	16·44	16·40
Shipbuilding and marine engineering	2·12	2·17
Vehicles	7·96	7·78
Metal goods not elsewhere specified	3·92	4·17
Textiles	7·82	7·66
Leather, leather goods and fur	0·59	0·52
Clothing and footwear	3·53	3·26
Bricks, pottery, glass, cement, etc.	2·85	2·99
Timber, furniture, etc.	2·94	2·19
Paper, printing and publishing	5·83	5·33
Other manufacturing industries	2·36	2·16
Construction	11·07	11·95
Gas, electricity and water	5·02	4·83
	100·00	100·00

If the old index is re-weighted with the weights of the new index for each of these Orders while retaining the weights of the old index inside each Order and if, in a similar way, the new index is re-weighted with the weights of the old index for each Order, the following sets of figures emerge for comparison :

1954 = 100

	Old index		New index	
	Old weights	New order weights	New weights	Old order weights
1946	67·0	67·3	69·0	68·8
1947	71·0	71·3	72·7	72·4
1948	77·0	77·4	79·0	78·7
1949	82·0	82·2	83·6	83·4
1950	87·5	87·6	88·3	88·3
1951	90·6	90·7	91·3	91·2
1952	88·0	88·3	89·2	88·9
1953	93·3	93·4	94·3	94·2
1954	100·0	100·0	100·0	100·0
1955	105·5	105·5	105·1	105·1
1956	105·2	105·2	105·6	105·5
1957	106·6	106·6	107·4	107·4

Comparison of the new

TABLE 2

1954 =

	All industries	Mining and quarrying	Manufacturing All manufacturing industries	Food, drink and tobacco	Chemicals and allied industries	Metal manufacture	Engineering and electrical goods	Shipbuilding and marine engineering	Vehicles
Standard Industrial Classification Order	II-XVIII	II	III-XVI	III	IV	V	VI	VII	VIII
									New
1946	69·0	83·3	67·0	83·8	61·8	70·0	59·0	107·9	52·2
1947	72·7	85·7	70·9	85·3	62·8	74·5	63·2	119·8	52·5
1948	79·0	90·8	77·3	87·4	68·0	83·2	69·4	116·5	61·4
1949	83·6	93·8	82·2	90·9	70·2	83·6	75·9	106·1	71·2
1950	88·3	94·8	87·8	90·1	79·7	87·9	84·5	93·5	76·4
1951	91·3	98·0	91·6	93·1	83·7	93·2	90·5	96·2	79·9
1952	89·2	99·3	88·2	94·7	79·6	95·9	92·4	99·2	79·5
1953	94·3	98·8	93·7	98·5	89·1	93·7	93·6	105·1	90·4
1954	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0
1955	105·1	99·0	106·4	102·7	106·2	108·4	107·4	108·5	114·6
1956	105·6	99·2	105·9	105·5	110·6	110·1	107·0	117·4	107·2
1957	107·4	98·5	108·3	106·9	115·0	111·3	111·0	107·9	114·9
									Old
1946	67·0	83·6	64·5	85·2	53·5	71·4	51·5	104·3	51·2
1947	71·0	86·1	68·8	85·7	54·4	73·7	59·1	111·2	52·2
1948	77·0	91·1	75·0	88·6	59·3	81·7	66·4	106·4	60·3
1949	82·0	94·0	80·2	91·6	64·6	83·2	72·8	98·6	68·6
1950	87·5	94·9	86·9	92·3	73·9	87·8	82·3	88·7	75·7
1951	90·6	98·2	90·8	92 8	80·2	92·9	90·0	93·0	77·4
1952	88·0	99·3	86·7	94·6	79·0	95·0	89·3	96·5	77·0
1953	93·3	98·9	92·4	98·2	90·6	92·7	90·7	102·2	87·3
1954	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0
1955	105·5	98·8	106·7	101·0	106·1	108·3	110·8	104·5	111·7
1956	105·2	99·5	105·1	102·8	109·9	108·7	105·7	116·2	102·8
1957	106·6	99·6	106·9	103·7	114·4	110·2	111·1	105·8	106·8

index with the old index

100

industries

Metal goods n.e.s.	Textiles	Leather, leather goods and fur	Clothing and footwear	Bricks, pottery, glass, cement, etc.	Timber, furniture, etc.	Paper, printing and publishing	Other manufacturing industries	Construction	Gas, electricity and water	
IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	Standard Industrial Classification Order
index										
84·4	68·3	93·7	77·9	60·4	66·0	59·1	49·7	76·2	62·6	1946
89·3	73·2	107·4	83·3	69·3	63·3	62·6	62·0	79·6	64·9	1947
93·0	85·5	107·8	88·2	79·7	70·3	65·8	74·8	86·7	69·0	1948
93·1	92·1	109·0	96·6	83·8	80·1	75·1	75·0	90·7	73·8	1949
95·0	100·1	110·1	101·2	88·8	84·1	86·5	86·8	90·8	80·4	1950
101·2	99·8	106·8	95·7	93·7	90·6	91·3	91·6	87·3	85·5	1951
97·5	81·9	94·2	91·7	92·3	80·2	76·7	81·9	90·0	88·1	1952
91·8	97·4	101·5	100·3	96·9	89·0	85·7	88·3	96·3	92·5	1953
100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	1954
111·6	97·5	99·7	103·7	103·9	100·1	107·7	110·8	100·3	105·4	1955
108·1	96·4	93·5	105·8	102·4	94·0	106·3	105·6	105·8	110·2	1956
108·6	96·5	93·3	105·1	99·3	96·0	109·1	111·9	105·5	111·8	1957
index										
83·2	68·1	91·1	76·4	64·0	65·5	58·0	49·5	76·2	62·7	1946
89·0	73·5	103·6	82·6	73·7	62·1	61·9	61·1	79·6	65·0	1947
92·0	85·2	104·0	86·9	80·8	68·8	64·5	71·2	86·7	69·1	1948
92·6	92·2	104·8	95·2	84·7	77·4	74·4	71·7	90·8	73·8	1949
95·5	100·9	106·9	100·8	90·0	83·6	85·9	84·2	90·8	80·3	1950
102·8	101·0	100·8	97·1	94·0	87·7	90·5	89·3	87·2	85·5	1951
98·9	81·9	89·2	91·6	93·2	79·2	76·3	79·2	89·9	88·1	1952
92·8	97·1	98·4	100·1	97·1	85·5	85·7	85·9	96·3	92·5	1953
100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	1954
111·7	98·3	99·8	103·8	103·9	100·9	108·8	112·7	100·8	105·6	1955
109·5	97·8	94·7	105·9	102·8	96·6	107·5	109·3	106·7	110·6	1956
103·9	97·4	95·3	105·1	100·2	98·7	109·2	116·5	106·5	112·3	1957

These figures show that re-weighting of the Orders makes little difference to the indices for all industries and that the differences between the old and the new index for all industries is almost entirely due to changes in the indices for individual Orders.

65. Some of the most significant changes in the indices for individual Orders are accounted for as follows :

Mining and quarrying. The old index for coal mining took account of quality changes up to the end of 1953 but owing to a change in the method of classifying coal by type which destroyed the continuity of the series, from 1954 onwards it was based on the single aggregate figure of saleable mined coal. The new index takes account of quality changes throughout and the growing proportion of small coal has contributed to the lower figure for mining and quarrying in the new index for 1957.

Food, drink and tobacco. The new series for the bread and flour confectionery industry which treat bread and flour confectionery as two separate items from 1954 onwards are chiefly responsible for the more rapid rise in the new index for the Order after that date.

Chemicals and allied industries. The more rapid rise in the old index between 1946 and 1954 is due to the larger weights given to drugs (particularly penicillin) and mineral oil refining and the correspondingly smaller weights given to the less rapidly expanding trades such as coke ovens, the change in weights reflecting the change in relative prices.

Engineering and electrical goods. In projecting the new index backwards more information for the years 1946 and 1947 has been discovered with the result that the new index shows a less rapid rise than the old index between 1946 and 1948. Re-weighting has also caused the indices to diverge over the whole period. The smaller rise in the new index compared with the old index between 1954 and 1955 and the smaller fall between 1955 and 1956 is largely caused by the use of radio and television sets as the chief representatives of the electronics industry in the old index. In the new index the electronics industry is covered by a wider range of items.

Vehicles. From 1954 the series for aircraft in the new index has been extended to cover government research and development expenditure (including that on guided weapons) in the aircraft industry, and the export of parts, both of which have grown quite rapidly in recent years. On account of the increased complexity of modern aircraft, airframe structure weight has been replaced by value as a means of measuring work done on non-military aircraft. These improvements have substantially altered the trend of the index for the aircraft industry and account for practically the whole of the gap between the old and the new indices for the Order between 1955 and 1957.

Metal goods not elsewhere specified. The products of this Order are extremely varied and numerous. In the old index about one-quarter of the weight was carried by input series while the remaining three-quarters was carried by a limited number of output series which have proved to be unrepresentative in recent years. The proportions in the new index from 1954 onwards are one-sixth output and five-sixths input. Reliable and comprehensive measures of changes in the volume of production in this sector are difficult to obtain and it is considered that for most industries in the Order input series will give a more dependable result than available output series. This change contributes substantially towards the gap between the old and the new indices in 1957.

Timber, furniture, etc. Most of the series in this Order have been revised. In particular the input of timber has been substituted for employment as the indicator for wooden containers and baskets. These changes account for the more rapid fall in the new index after 1954.

Other manufacturing industries. This Order, though accounting for little over 2 per cent. of the whole index, contains a large number of industries which are very varied in character and size, and has been affected by a large number of small classification changes. These facts make it difficult to isolate the causes of the less rapid rise in the new index for Order XVI, but the reduced weight given to plastics materials consumption and the increased weight given to rubber are important factors, the former being a more rapidly expanding industry.

66. In spite of numerous revisions to weights and series the old index for all industries is very close to the new index. Between 1946 and 1957 the old index rose from 67·0 to 106·6, an increase of 59 per cent. over the eleven-year period, while the new index rose from 69·0 to 107·4, an increase of 56 per cent. If two or three of the more important new or revised series had been incorporated in the old index the difference between the two indices would have been even less; this suggests that the effects of the revised weighting largely cancelled each other out and that no noticeable bias had crept into the total index as a result of using 1948 weights rather than those of a later year.

APPENDIX

New index of

Base: Average

				Manufacturing						
	Total all industries		Mining and quarrying	Total manufacturing industries		Food, drink and tobacco	Chemicals and allied industries	Metal manufacture	Engineering and electrical goods	Shipbuilding and marine engineering
	Unadjusted	Seasonally adjusted		Unadjusted	Seasonally adjusted					
Standard Industrial Classification Order	II-XVIII		II	III-XVI		III	IV	V	VI	VII
Weights	1,000·00		72·35	759·79		81·77	63·04	68·70	164·01	21·66
1946	69·0		83·3	67·0		83·8	61·8	70·0	59·0	107·9
1947	72·7		85·7	70·9		85·3	62·8	74·5	63·2	119·8
1948	79·0		90·8	77·3		87·4	68·0	83·2	69·4	116·5
1949	83·6		93·8	82·2		90·9	70·2	83·6	75·9	106·1
1950	88·3		94·8	87·8		90·1	79·7	87·9	84·5	93·5
1951	91·3		98·0	91·6		93·1	83·7	93·2	90·5	96·2
1952	89·2		99·3	88·2		94·7	79·6	95·9	92·4	99·2
1953	94·3		98·8	93·7		98·5	89·1	93·7	93·6	105·1
1954	100·0		100·0	100·0		100·0	100·0	100·0	100·0	100·0
1955	105·1		99·0	106·4		102·7	106·2	108·4	107·4	108·5
1956	105·6		99·2	105·9		105·5	110·6	110·1	107·0	117·4
1957	107·4		98·5	108·3		106·9	115·0	111·3	111·0	107·9
1958	106·2		94·3	106·9		109·4	115·0	101·1	111·5	108·8
1954 January	98·9	98·1	105·5	97·3	97·2	93·2	97·8	99·2	97·8	98·8
February	100·9	98·1	105·8	99·8	96·8	93·4	100·1	102·1	101·0	97·7
March	103·3	97·1	106·2	103·2	96·5	96·3	102·2	102·0	103·9	97·9
April	97·0	99·2	97·6	96·9	99·1	99·5	99·5	97·8	95·4	100·9
May	102·7	99·2	106·3	103·6	99·5	103·2	102·0	105·0	102·7	100·5
June	98·6	99·4	98·1	99·1	99·7	100·1	99·9	99·3	99·0	100·5
July	91·4	100·8	82·9	91·1	100·8	94·4	94·3	84·6	89·2	97·5
August	87·9	101·6	85·4	86·5	101·8	97·6	91·3	85·2	81·9	95·8
September	103·8	101·4	100·8	104·9	101·6	101·1	105·4	106·7	103·2	97·7
October	106·8	101·6	107·0	108·0	102·3	109·8	103·7	107·7	108·8	104·5
November	107·6	101·1	107·1	108·7	101·7	110·8	105·2	109·2	110·7	102·9
December	101·4	102·7	97·4	101·2	103·2	101·7	99·2	101·3	106·2	105·4

industrial production

1954 = 100

industries											
Vehicles	Metal goods n.e.s.	Textiles	Leather, leather goods and fur	Clothing and footwear	Bricks, pottery glass, cement, etc.	Timber, furniture, etc.	Paper, printing and publishing	Other manufacturing industries	Construction	Gas, electricity and water	
VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	Standard Industrial Classification Order
77·79	41·74	76·63	5·24	32·54	29·90	21·87	53·29	21·61	119·54	48·32	Weights
52·2	84·4	68·3	93·7	77·9	60·4	66·0	59·1	49·7	76·2	62·6	1946
52·5	89·3	73·2	107·4	83·3	69·3	63·3	62·6	62·0	79·6	64·9	1947
61·4	93·0	85·5	107·8	88·2	79·7	70·3	65·8	74·8	86·7	69·0	1948
71·2	93·1	92·1	109·0	96·6	83·8	80·1	75·1	75·0	90·7	73·8	1949
76·4	95·0	100·1	110·1	101·2	88·8	84·1	86·5	86·8	90·8	80·4	1950
79·9	101·2	99·8	106·8	95·7	93·7	90·6	91·3	91·6	87·3	85·5	1951
79·5	97·5	81·9	94·2	91·7	92·3	80·2	76·7	81·9	90·0	88·1	1952
90·4	91·8	97·4	101·5	100·3	96·9	89·0	85·7	88·3	96·3	92·5	1953
100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	1954
114·6	111·6	97·5	99·7	103·7	103·9	100·1	107·7	110·8	100·3	105·4	1955
107·2	108·1	96·4	93·5	105·8	102·4	94·0	106·3	105·6	105·8	110·2	1956
114·9	108·6	96·5	93·3	105·1	99·3	96·0	109·1	111·9	105·5	111·8	1957
118·4	106·0	87·1	88·0	101·5	98·0	93·6	111·2	112·6	105·0	116·8	1958
99·2	94·7	100·8	105·2	100·2	95·6	83·2	98·1	93·9	99·3	114·0	January 1954
100·5	94·0	104·8	106·1	111·8	95·3	88·1	100·9	95·4		116·7	February
115·4	94·2	104·6	106·2	112·0	100·8	94·2	102·5	103·9		107·6	March
94·1	94·0	95·8	94·1	106·5	98·5	93·9	96·8	91·7	98·9	96·4	April
103·3	104·4	103·2	105·6	110·1	105·8	101·6	104·4	103·3		92·8	May
98·9	99·4	96·5	100·7	95·9	100·7	104·6	97·4	102·7		87·4	June
98·8	90·7	88·7	89·9	90·3	97·8	94·3	84·7	85·9	101·2	83·7	July
77·1	89·4	84·4	79·0	82·4	88·6	87·5	90·8	90·0		84·2	August
103·6	108·1	106·5	104·1	105·2	105·2	117·6	104·7	112·2		93·5	September
104·8	112·5	110·0	105·2	107·9	108·1	110·3	105·5	110·9	100·7	99·3	October
102·2	113·7	110·7	106·8	96·6	108·1	120·3	110·9	108·4		111·5	November
102·6	104·0	94·9	97·8	84·1	96·2	103·8	101·7	104·7		113·2	December

Base: Average

					Manufacturing					
	Total all industries		Mining and quarrying	Total manufacturing industries		Food, drink and tobacco	Chemicals and allied industries	Metal manufacture	Engineering and electrical goods	Shipbuilding and marine engineering
	Unadjusted	Seasonally adjusted		Unadjusted	Seasonally adjusted					
Standard Industrial Classification Order	II-XVIII		II	III-XVI		III	IV	V	VI	VII
Weights	1,000·00		72·35	759·79		81·77	63·04	68·70	164·01	21·66
1955 January	103·4	102·9	102·5	103·9	104·1	93·8	106·3	107·6	105·1	103·4
February	106·3	103·2	105·3	107·5	104·2	97·7	106·9	111·9	109·0	103·6
March	109·7	103·0	106·3	111·5	104·1	98·9	109·1	112·7	114·7	105·2
April	102·2	104·5	97·0	103·7	106·0	102·1	106·5	108·1	102·9	107·5
May	106·3	104·8	99·9	108·4	106·5	104·7	105·8	113·8	106·9	109·5
June	104·7	103·5	96·7	106·8	104·8	105·5	105·3	105·3	108·1	109·5
July	95·0	105·3	80·0	95·8	106·7	98·3	97·1	91·2	95·6	107·2
August	91·6	105·8	83·2	91·3	107·2	100·3	95·7	89·5	86·7	105·9
September	108·4	106·2	101·6	110·5	107·4	104·3	110·4	116·3	110·6	109·7
October	112·9	107·4	106·9	114·9	108·9	109·9	109·5	117·2	118·9	112·0
November	113·7	106·9	108·4	115·3	108·0	112·2	113·3	116·5	117·7	113·6
December	107·1	108·3	100·5	107·7	109·8	104·6	108·0	111·1	112·3	114·6
1956 January	106·8	106·2	102·6	107·0	107·2	94·6	111·5	115·2	106·2	114·5
February	108·8	105·5	105·3	109·1	105·7	97·8	112·7	116·4	108·8	114·5
March	110·2	104·8	103·8	111·7	105·8	101·0	113·1	120·1	109·2	115·4
April	105·2	105·8	100·9	105·7	106·3	107·3	112·9	114·5	105·1	117·8
May	105·1	104·8	98·3	105·5	104·8	108·2	109·5	109·3	104·0	118·4
June	109·0	106·0	104·8	109·9	106·6	107·5	112·2	113·3	111·8	118·3
July	98·6	105·4	88·0	98·2	105·5	99·6	101·8	100·4	99·4	116·3
August	87·9	104·7	72·2	86·2	104·5	95·9	98·4	80·6	85·9	113·3
September	108·3	105·8	99·7	109·8	106·4	105·9	114·7	116·2	114·1	116·5
October	110·8	105·4	104·6	111·1	105·2	116·1	115·3	113·5	114·0	119·8
November	113·1	106·3	107·6	113·6	106·3	120·1	116·9	118·2	115·5	121·7
December	103·9	105·0	99·6	103·2	105·1	111·5	108·1	103·3	110·0	121·9

I—*continued*

1954 = 100

industries											
Vehicles	Metal goods n.e.s.	Textiles	Leather, leather goods and fur	Clothing and footwear	Bricks, pottery, glass, cement, etc.	Timber, furniture, etc.	Paper, printing and publishing	Other manufacturing industries	Construction	Gas, electricity and water	
VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	Standard Industrial Classification Order
77·79	41·74	76·63	5·24	32·54	29·90	21·87	53·29	21·61	119·54	48·32	Weights
108·9	112·6	100·3	105·6	98·3	93·9	97·4	110·0	106·5	94·0	122·2	January 1955
110·4	110·9	105·1	107·4	114·5	101·5	99·5	113·7	107·1		123·6	February
135·9	113·2	103·9	107·8	113·4	102·5	100·3	107·7	112·7		120·9	March
114·2	106·0	93·6	95·9	108·9	100·1	89·9	98·9	106·7	99·4	100·2	April
119·4	112·2	97·6	100·9	106·8	106·8	98·2	114·7	113·9		99·2	May
118·5	115·0	95·4	104·0	98·1	107·7	96·7	106·5	114·1		92·3	June
106·8	98·0	84·0	90·3	94·4	99·3	95·9	92·0	93·4	103·0	83·4	July
92·6	94·9	79·8	79·3	84·2	94·3	85·5	97·0	101·5		84·7	August
116·2	114·8	101·2	101·0	110·6	111·7	111·9	109·7	122·0		95·6	September
116·2	123·9	106·0	104·5	116·6	113·5	116·8	115·9	121·1	104·6	106·7	October
117·3	124·3	109·5	105·8	107·1	114·4	108·6	119·5	121·0		116·6	November
118·8	113·4	94·2	94·2	90·9	101·0	99·9	107·2	109·8		119·7	December
114·9	118·4	99 3	100·5	100·7	99·5	86·5	115·5	112·5	99·4	126·1	January 1956
118·1	116·2	102·9	102·4	115·3	95·7	86·0	114·5	113·8		136·7	February
141·8	114·0	99·9	96·8	121·4	102·5	89·2	107·6	101·8		117·9	March
98·8	109·8	94·7	92·7	113·2	103·5	90·1	109·3	102·9	107·7	109·1	April
106·7	109·4	94·1	93·9	108·3	106·6	92·3	106·4	106·3		98·6	May
116·3	112·9	98·5	98·3	110·5	110·2	96·9	107·5	109·2		97·2	June
105·5	94·4	85·8	85·5	94·8	102·2	92·3	94·4	92·1	107·8	91·0	July
71·5	87·2	77·8	70·7	86·5	90·7	81·8	86·2	89·1		89·7	August
103·8	108·2	101·0	95·8	117·6	106·7	109·5	106·4	111·4		99·3	September
100·1	111·7	104·7	97·2	110·0	107·4	107·2	112·8	113·9	108·3	111·8	October
109·3	114·4	107·3	98·7	105·5	108·0	105·1	112·8	113·1		123·0	November
99·6	100·7	90·8	90·0	85·8	96·3	91·2	102·9	101·2		122·6	December

Base: Average

				Manufacturing						
	Total all industries		Mining and quarrying	Total manufacturing industries		Food, drink and tobacco	Chemicals and allied industries	Metal manufacture	Engineering and electrical goods	Shipbuilding and marine engineering
	Unadjusted	Seasonally adjusted		Unadjusted	Seasonally adjusted					
Standard Industrial Classification Order	II-XVIII		II	III-XVI		III	IV	V	VI	VII
Weights	1,000·00		72·35	759·79		81·77	63·04	68·70	164·01	21·66
1957 January	107·1	106·5	102·9	106·2	106·4	99·8	115·7	111·2	107·5	120·3
February	111·1	107·9	108·6	112·1	108·6	102·7	117·9	118·8	114·7	118·7
March	113·0	106·1	107·2	114·0	106·5	105·0	120·4	116·0	119·8	76·0
April	104·2	106·4	99·0	104·4	106·6	106·8	114·9	110·0	103·7	99·4
May	112·0	108·2	107·7	113·2	108·7	111·7	117·1	117·3	115·5	105·1
June	107·4	108·2	98·6	109·0	109·5	108·4	113·5	112·5	113·5	111·0
July	99·9	108·3	87·3	100·9	109·8	102·0	107·6	98·3	103·0	109·1
August	91·8	108·2	74·3	91·6	109·5	99·2	102·6	92·2	92·6	108·4
September	111·0	108·5	95·3	113·7	110·2	109·1	119·4	118·2	116·1	108·9
October	111·5	106·1	99·7	113·1	107·3	112·9	119·7	115·5	116·2	110·8
November	114·8	107·9	105·4	116·3	109·0	117·3	119·4	119·0	120·7	113·2
December	105·0	106·1	96·0	104·6	106·5	108·4	111·5	107·2	109·5	113·7
1958 January	105·6	105·6	97·1	105·1	106·2	98·6	114·2	109·4	103·3	113·2
February	111·3	107·7	103·6	112·4	108·7	104·9	118·2	115·5	115·3	111·7
March	114·1	107·8	103·1	115·4	108·7	109·1	120·3	114·1	126·9	107·2
April	104·2	106·3	96·2	104·3	106·5	109·9	115·7	103·9	102·1	106·8
May	106·4	105·3	100·1	107·4	106·2	114·9	112·8	102·6	109·1	108·2
June	107·4	105·5	92·4	109·6	106·4	115·0	115·5	105·7	117·1	108·7
July	97·6	106·2	84·0	97·8	106·9	105·6	106·5	87·7	100·1	107·1
August	89·9	104·9	67·9	89·5	105·8	100·8	102·2	81·5	93·3	107·1
September	107·3	104·9	93·3	108·9	105·5	109·4	116·9	102·4	114·1	108·3
October	110·3	105·3	98·6	111·3	106·0	117·4	118·8	99·0	114·0	109·6
November	113·6	106·9	100·8	114·8	107·3	119·3	123·3	102·4	123·2	108·3
December	106·7	107·4	94·4	106·0	107·6	108·5	115·6	89·5	118·9	109·5

1954 = 100

industries											
Vehicles	Metal goods n.e.s.	Textiles	Leather, leather goods and fur	Clothing and foot-wear	Bricks, pottery, glass, cement, etc.	Timber, furniture, etc.	Paper, printing and publishing	Other manufacturing industries	Construction	Gas, electricity and water	
VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	Standard Industrial Classification Order
77·79	41·74	76·63	5·24	32·54	29·90	21·87	53·29	21·61	119·54	48·32	Weights
103·5	113·3	100·2	98·6	102·4	97·5	92·5	107·7	110·8	105·0	129·2	January 1957
117·6	112·0	105·0	101·4	122·0	100·1	91·6	113·4	110·4		125·9	February
130·9	109·5	104·4	101·7	124·2	102·3	100·4	117·6	109·1		115·7	March
100·9	105·8	94·5	88·4	110·5	98·0	90·3	109·8	107·7	107·1	108·3	April
123·8	113·9	102·1	97·9	108·7	105·6	96·5	115·7	117·1		106·9	May
119·6	103·9	95·3	93·0	103·9	100·3	98·8	107·7	110·3		94·7	June
119·6	96·1	87·0	86·2	92·8	97·2	93·1	90·4	106·0	104·7	93·5	July
83·1	90·3	80·2	71·3	85·1	85·7	80·1	98·6	94·8		91·1	August
121·2	118·2	99·3	95·8	119·5	101·8	111·9	111·5	122·3		104·8	September
116·0	116·0	100·6	97·4	109·1	104·7	105·7	112·7	125·5	105·3	114·1	October
125·7	118·6	103·4	100·2	101·8	106·8	102·5	118·5	121·0		126·2	November
117·3	105·7	86·2	87·9	80·9	91·3	88·4	105·1	107·3		130·9	December
119·6	112·9	93·0	96·1	94·6	93·6	84·3	108·2	119·2	102·1	138·2	January 1958
129·4	110·8	96·1	96·5	117·6	97·0	92·7	115·9	122·1		133·6	February
131·7	112·2	94·2	94·3	121·4	98·9	91·8	117·6	109·4		133·0	March
120·1	105·8	83·7	83·7	101·6	95·3	85·7	108·3	107·7	104·3	117·0	April
125·8	104·0	82·6	84·0	104·3	101·1	88·9	113·2	115·3		105·6	May
119·3	107·8	85·3	89·7	96·7	101·8	95·6	117·1	113·4		100·9	June
116·9	94·3	76·6	78·4	91·1	96·8	86·3	93·1	100·7	105·5	95·9	July
81·9	88·5	67·9	67·3	87·1	83·4	80·0	101·8	91·5		92·5	August
116·3	108·1	89·0	89·5	108·7	100·8	98·7	115·0	121·1		104·3	September
117·5	108·6	95·6	93·0	111·7	106·4	107·9	117·2	123·7	108·0	116·5	October
117·2	115·3	97·8	96·6	105·3	107·8	113·7	121·4	118·2		127·7	November
125·6	104·1	83·4	86·7	77·9	93·6	97·7	105·2	108·7		135·8	December

APPENDIX

List of series and weights used in

The series used in the index of production together with their corresponding weights Industrial Classification and are given in the table below. A few of the series, as Unless otherwise stated, the series relate to production. In those cases where the have been made for price changes, the method of adjustment for each case being shown

Standard Industrial Classification			Series
Order	Minimum List Heading	Industry	
II		**Mining and Quarrying**	
	101	Coal mining	Coal mined: Bituminous: Unscreened Large Graded Treated smalls Untreated smalls Anthracite
	102	Stone and slate quarrying and mining	Cement British Railways: mineral traffic originating
	103	Chalk, clay, sand and gravel extraction	Aggregate (Great Britain) China clay
	109	Other mining and quarrying	Iron ore Tin ore (metal content) Salt Indigenous crude and shale oil Gypsum (excluding anhydrite) (Great Britain)
III		**Food, Drink and Tobacco**	
	211	Grain milling	Wheat milled Oats milled Breakfast cereals Compound feeding stuffs by provender millers and compounders
	212	Bread and flour confectionery	Flour for bread Flour for flour confectionery
	213	Biscuits	Biscuits

II

the index of industrial production

have been arranged in accordance with the revised edition (1958) of the Standard indicated, relate to Great Britain while the remainder refer to the United Kingdom. "unit" column of the table shows that the series relate to money values, adjustments in Appendix **III**.

Period of series	Unit	Weight per 1,000	Remarks
		72·35	Estimated net output in 1954, £561·8 million
Weekly	Thousand tons	4·88	
"	"	19·79	
"	"	13·88	
"	"	12·78	
"	"	11·19	
"	"	2·05	
Four/five weekly	Thousand tons	2·58	
Four weekly	Million tons	0·77	
Quarterly	Thousand cu. yds.	2·18	
"	Thousand tons		
Weekly	"	0·76	
Monthly	Tons	0·12	
"	"	1·11	
"	Thousand tons		
"	"	0·26	
		81·77	Estimated net output in 1954, £634·9 million
Weekly	Thousand tons	3·86	Input
Four/five weekly	"	0·22	Input
Four weekly	"	0·58	
Four/five weekly	"	1·03	
"	Index	7·74	Input
"	"	5·64	Input
Four weekly	Thousand tons	4·18	

Standard Industrial Classification			Series
Order	Minimum List Heading	Industry	
III (contd.)	214	Bacon curing, meat and fish products	Usage of pig carcases: for bacon for other purposes
			Canned meat
			Canned fish
			Fresh white fish for quick freezing
			Herrings for curing
	215	Milk products	Butter (excluding farm production)
			Cheese
			Condensed milk
			Milk powder
			Ice cream
	216	Sugar	Raw sugar from home grown beet
			Refined sugar from imported and home grown raws
	217	Cocoa, chocolate and sugar confectionery	Chocolate confectionery
			Sugar confectionery
			Chocolate coverture, cocoa powder and drinking chocolate
	218	Fruit and vegetable products	Jam and marmalade
			Canned and bottled fruit
			Canned vegetables
			Pickles, sauces, etc.
			Table jellies
			Canned soups
	219	Animal and poultry foods	Compound feeding stuffs by provender millers and compounders
			Cat and dog foods
	229	Food industries not elsewhere specified	Margarine
			Compound cooking fat
			Maize starch
			Glucose
			Raw coffee used in extracts and essences
			Salt
			Grain milling

II—*continued*

Period of series	Unit	Weight per 1,000	Remarks
Weekly	Thousands	2·06	Input
,,	,,	1·16	Input
Quarterly	Thousand tons	0·45	
,,	,,	0·23	
,,	,,	0·13	Series monthly up to December, 1956
			Input series from January, 1958 (previously "quick frozen white fish")
,,	,,	0·32	Input
Four/five weekly	Thousand tons	0·37	Input. Based on milk usage
,,	,,	0·70	Input. Based on milk usage
Monthly	,,	0·39	Series four and five weekly up to October, 1957
,,	,,	0·26	Series four and five weekly up to October, 1957
Four/five weekly	Gallons	0·52	Index comprising two separately weighted series
Four/five weekly	Thousand tons	2·47	Refined equivalent
,,	,,		
Four weekly	,,	5·28	
,,	,,	3·66	
Quarterly	,,	0·67	Despatches
Four weekly	,,	1·12	
Quarterly	,,	0·49	
,,	,,	1·42	
Four weekly	,,	1·04	
Quarterly	,,	0·30	
,,	,,	0·48	
Four/five weekly	,,	3·43	
,,	Tons	0·38	Index comprising two separately weighted series
,,	Thousand tons	2·75	
,,	,,		
,,	,,		Series quarterly up to December, 1957
,,	,,		
Quarterly	Tons		Input
Monthly	,,		
Four/five weekly	Thousand tons		Input. Index comprising items in Heading 211

Standard Industrial Classification			Series
Order	Minimum List Heading	Industry	
III (contd.)	231	Brewing and malting	Beer
	239	Other drink industries	Potable spirits
			Cider Soft drinks: Concentrated Unconcentrated
	240	Tobacco	Unmanufactured tobacco entered for home industrial consumption less waste returned
IV		**Chemicals and Allied Industries**	
	261	Coke ovens and manufactured fuel	Coke from coke ovens
			Coal consumption by low temperature carbonisation plants Coal consumption by briquetting works
	262	Mineral oil refining	Aviation and motor spirits Industrial and white spirits Burning oil Vaporizing oil Gas and diesel oils Fuel oil Lubricating oils Bitumen Paraffin wax Propane and butane Other gases and refinery products
	263	Lubricating oils and greases	Lubricating oils (United Kingdom refineries)
	271/1	Dyestuffs	Synthetic dyestuffs
	271/2	Fertilizers and chemicals for pest control	Basic slag, superphosphate, sulphate of ammonia, compounds, concentrated complete fertilizers
	271/3	Other chemicals	Crude tar distilled Crude benzole

II—*continued*

Period of series	Unit	Weight per 1,000	Remarks
Monthly	Million bulk barrels	13·97	
,,	Million proof gallons	3·67	
,,	Thousand gallons	0·82	Series quarterly up to December, 1955
,,	Million gallons	0·64	Series quarterly up to December, 1957
,,	,,	1·93	Series quarterly up to December, 1957
,,	Million lb.	7·41	Input
		63·04	Estimated net output in 1954, £489·5 million
Four/five weekly	Thousand tons	2·92	Input. Series four and five weekly up to June, 1957
Monthly	,,		
,,	,,		Input. Series four and five weekly up to May, 1958
,,	,,	4·51	Comprising 17 separately weighted series
,,	,,		
,,	,,		
,,	,,		
,,	,,		
,,	,,		
,,	,,		
,,	,,		
,,	,,		
,,	,,		
,,	,,		
,,	,,	2·03	Input
,,	Million lb.	2·95	Comprising 12 separately weighted series. Series quarterly up to September, 1956
,,	Thousand tons	3·00	Comprising 6 separately weighted series
Quarterly	,,	0·68	Input
,,	Million gallons		

Standard Industrial Classification			Series
Order	Minimum List Heading	Industry	
IV (contd.)	271/3	Other chemicals (contd.)	Colours Inorganic pigments Pigment dyestuffs Synthetic oxides of iron Penicillin Salicylates Bismuth Insulin Other organic and inorganic chemicals, industrial gases and miscellaneous chemical products
	272/1	Pharmaceutical preparations	Prescriptions dispensed (England and Wales) Exports of certain drugs, medicines, etc.
	272/2	Toilet preparations	Toilet preparations and perfumery
	273	Explosives and fireworks	Industrial explosives Propellants and explosives
	274	Paint and printing ink	Emulsion paints, other water paints, cellulose based paints, other paints and enamels, varnishes, thinners, mastics
			Home consumption of newsprint
	275/1	Vegetable and animal oils and fats	Oilseeds and nuts crushed Refined deodorised oil: Hardened Unhardened Compound feedingstuffs
	275/2	Soap, detergents, candles and glycerine	Soap Detergents
	276	Synthetic resins and plastics materials	Thermoplastic materials Thermosetting materials

II—*continued*

Period of series	Unit	Weight per 1,000	Remarks
Quarterly	Cwts.	0·39	Comprising 2 separately weighted series
”	”		
”	”		
”	”		
Four/five weekly	Thousand mega units	1·12	Comprising 3 separately weighted series
Quarterly	Lb.		
”	”		
”	Million units		
Monthly	Various quantitative units	17·06	Comprising 17 separately weighted series up to December, 1958 and 65 separately weighted series from January, 1959
Monthly	Pence	3·69	Cost of ingredients deflated
”	£ thousand	1·99	Exports lagged one month and deflated
”	”	1·86	Sales by manufacturers deflated. Series quarterly up to December, 1958
”	Index	9·83	Index of quantities produced
Quarterly	”		Index of quantities produced in Ministry of Supply and Agency factories
Monthly	£ thousand		Sales by manufacturers deflated, adjusted quarterly by 8 separately weighted series of quantities produced. Series quarterly up to December, 1957 comprising 4 separately weighted series of quantities produced.
Four/five weekly	Thousand tons		Representing use of printers' ink
”	”	1·26	Input
”	”	0·32	
”	”	0·37	
”	”	0·35	
Monthly	”	3·25	Series quarterly up to December, 1954
”	”		
Quarterly	Tons	2·27	Comprising 8 separately weighted groups of materials
”	”	1·64	Comprising 6 separately weighted groups of materials

Standard Industrial Classification			Series
Order	Minimum List Heading	Industry	
IV (contd.)	277/1	Polishes	Floor and furniture, leather, metal and stove polishes
	277/2	Gelatine, adhesives, etc.	Bone and hide glue, technical, edible and photographic gelatine
V		**Metal Manufacture**	
	311	Iron and steel (general)	Pig iron Wrought iron: Finished Semi-finished Steel ingots and castings Finished steel
	312	Steel tubes	Steel tubes: Alloy Non-alloy
	313	Iron castings, etc.	Refined and cylinder iron Iron castings including engineers' castings from Orders VI, VII and VIII
	321	Light metals	Aluminium: Virgin ingots Secondary ingots Sheet and strip Extrusions Foil Castings Magnesium: Total (including alloys) Castings
	322	Copper, brass and other base metals	Copper: Total refined Wire rods Rods, bars and sections Sheet strip and plate Tubes Brass and other copper base alloys: Total refined Rods, bars and sections Sheet strip and plate Tubes Castings and miscellaneous

II—*continued*

Period of series	Unit	Weight per 1,000	Remarks
Quarterly	Thousand cwt.	0·82	Comprising 3 separately weighted series
„	Tons	0·73	Comprising 5 separately weighted series
		68·70	Estimated net output in 1954, £533·4 million
Weekly	Thousand tons	4·29	
Four/five weekly	Tons	0·04	
„	„	0·04	
Weekly Four/five weekly	Thousand tons	32·11	Adjusted quarterly by the British Iron and Steel Federation index (Steel—crude, semi-finished and finished, excluding tubes) comprising 42 separately weighted items
„	„	0·63	
„	„	3·53	
„	Tons	0·08	
„	Thousand tons	13·15	Adjusted quarterly by 6 separately weighted groups of items
Monthly	Tons	0·17	
„	„	0·44	
„	„	1·24	
„	„	0·51	
„	„	0·24	
„	„	1·66	
„	„	0·08	
„	„	0·20	
„	„	0·70	
„	„	0·33	
„	„	0·23	
„	„	0·64	
„	„	0·70	
Quarterly	„	0·26	
Monthly	„	0·97	
„	„	0·81	
„	„	0·64	
„	„	2·06	

Standard Industrial Classification			Series
Order	Minimum List Heading	Industry	
V (contd.)	322	Copper, brass and other base metals (contd.)	Lead: Refined Consumption of scrap and remelted Consumption for sheet and pipe Consumption for shot Consumption for foil and collapsible tubes Zinc: Slab zinc Consumption for rolled zinc Consumption for alloy diecastings Tin: Metal Consumption for solder Nickel: Metal Consumption of nickel metal White metal: Tin consumption for white metal
VI		**Engineering and Electrical Goods** *Series used up to December*, 1957	
	331	Agricultural machinery (except tractors)	Agricultural machinery: Mouldboard ploughs (tractor drawn) Disc harrows Corn drills Mowers Pick-up balers Combine harvesters Milking machines Farmyard manure spreaders Grain and grass driers
	332	Metal-working machine tools	Metal-working machine tools Welding machinery Welding electrodes
	333	Engineers' small tools and gauges	Cutting tools and jigs Gauges Diamond tools Diamond dies
	334	Industrial engines	Internal combustion engines Hydraulic turbines Steam turbo-alternators Steam turbines
	335	Textile machinery and accessories	Hosiery and knitting machinery Lace and embroidery machinery Other textile machinery and accessories

II—*continued*

Period of series	Unit	Weight per 1,000	Remarks
Monthly	Tons	0·42	
”	”		Input
”	”		Input
”	”		Input
”	”		Input
”	”	1·06	Input
”	”		Input
”	”		
”	”	1·47	Input
”	”		
”	”		
”	”		Input
”	”		Input
		164·01	Estimated net output in 1954, £1,273·5 million
			These series were used up to March, 1959
Quarterly	Number	0·14	
”	”	0·08	
”	”	0·05	
”	”	0·12	
”	”	0·50	
”	”	0·62	
”	”	0·14	
”	”	0·13	
”	”	0·09	
Monthly	£ thousand	6·53	Value of deliveries deflated
Quarterly	”	0·30	Value of deliveries deflated
”	Million ft.	0·14	Deliveries
”	£ thousand	4·61	Value of deliveries deflated
”	”	0·75	Value of deliveries deflated
”	”		
”	”		
Monthly	Thousand B.H.P.	3·03	Deliveries
”	”	0·82	Deliveries. Hydraulic turbines and steam tur alternators treated as quarterly series
”	Thousand kW.		
Quarterly	”		
”	£ thousand	0·77	Value of deliveries deflated
”	”	0·12	
”	”	6·03	

Standard Industrial Classification			Series
Order	Minimum List Heading	Industry	
VI (contd.)		*Series used up to December, 1957*	
	336	Contractors' plant and quarrying machinery	Excavators and parts Tracklaying tractors Other contractors' plant
	337	Mechanical handling equipment	Cranes Lifts and escalators Conveyors and elevators and all other mechanical handling equipment
	338	Office machinery	Typewriters Accounting etc., machinery including punched card machinery Other office machinery
	339/1	Mining machinery	Coal mining machinery Metalliferous mining machinery
	339/2	Printing and bookbinding machinery	Printing and bookbinding machinery Composing room equipment
	339/3	Refrigerating machinery	Domestic refrigerating machinery Industrial refrigerating machinery Commercial refrigerating machinery
	339/4	Space-heating, ventilating and air-conditioning equipment	
	339/5	Pumps, compressors, etc.	Industrial valves Pumps and pumping plant (including kerb-side pumps) Air and gas compressors
	339/6	Scales and weighing machinery	Weighing machinery and parts
	339/7	Portable power tools	Portable power tools

II—*continued*

Period of series	Unit	Weight per 1,000	Remarks
Quarterly	£ thousand	1·25	Value of deliveries deflated
,,	,,	0·82	
,,	,,	2·11	
,,	,,	1·64	Value of production deflated
,,	,,	0·77	Value of production deflated
,,	,,	2·02	Conveyors and elevators, value of deliveries deflated. All other mechanical handling equipment, value of production deflated
Monthly	,,	0·76	Value of deliveries deflated
,,	,,	1·44	
,,	,,	0·68	
Quarterly	,,	1·75	Value of deliveries deflated
,,	,,	0·21	
Monthly	,,	2·07	Value of deliveries deflated
Annual	,,	0·06	
Monthly	,,	1·24	Value of deliveries deflated
,,	,,	0·28	
,,	,,	0·63	
			Included with Heading 341/2
Monthly	£ thousand	1·70	Value of deliveries deflated
,,	,,	2·46	
Quarterly	,,	0·58	
,,	,,	0·73	Value of deliveries deflated
,,	,,	0·85	Value of deliveries deflated

Standard Industrial Classification			Series
Order	Minimum List Heading	Industry	
VI (contd.)		*Series used up to December, 1957*	
	339/8	Other machinery except electrical machinery	Boot and shoe machinery Brick, tile and pottery making machinery Carpet sweepers (non-electric) Domestic laundry machinery (other than electric) Fire extinguishing equipment Metal rolling mills Sewing machines, industrial and domestic, and parts Stone working machinery Tanning and leather working machinery Woodworking machine tools Cement making machinery Commercial laundry machinery Electro-plating, galvanising and tinning plant Foundry plant Hammer mills Lawn mowers Mattress making machinery Paint spray equipment Plastic and rubber working machinery Tobacco and cigarette making machinery Transport service equipment (excluding kerbside petrol pumps) Plantation machinery Packaging machinery Food and drink preparation machinery
	341/1	Boilers and boilerhouse plant	Shell boilers Steam raising plant accessories
	341/2	Other industrial plant and fabricated steelwork	Producers' deliveries of finished steel to constructional engineering Industrial furnaces (electric and non-electric) Sewage and refuse disposal plant Water treatment plant Other steelworks specialised plant Animal feedingstuffs machinery Filtration plant Grain milling machinery Ink, paint and varnish machinery Oils, fats and greases machinery Other chemical plant

II—*continued*

Period of series	Unit	Weight per 1,000	Remarks
Monthly	£ thousand	5·89	Value of deliveries deflated
Quarterly	,,	5·77	Value of deliveries deflated
Six monthly	,,	6·38	Value of deliveries deflated
Monthly	,,	0·52	Value of deliveries deflated
,,	,,	3·32	
,,	Thousand tons	6·48	Input. Includes Heading 339/4
,,	£ thousand	2·34	Value of deliveries deflated
Quarterly	,,	1·54	Value of deliveries deflated
Six monthly	,,	2·59	Value of deliveries deflated

Standard Industrial Classification			Series
Order	Minimum List Heading	Industry	
VI (contd.)		*Series used up to December,* 1957	
	342	Ordnance and small arms	Ordnance and small arms
			Ordnance and small arms
	349/1	Ball and roller bearings	Ball and roller bearings
	349/2	Precision chains	Precision chains
	349/3	Other mechanical engineering	
	351/1	Photographic equipment	Photographic and cinematographic apparatus including parts and accessories Sensitized paper, films and plates
	351/2	See below	
	351/3	Spectacles, etc.	Ophthalmic lenses
	351/2 351/4	Optical instruments Surgical, dental and veterinary instruments and appliances	Scientific and industrial instruments and apparatus
	351/5	Other scientific instruments and equipment	
	352	Watches and clocks	Watches Clocks including car clocks and time recorders
	361	Electrical machinery	Hydraulic turbines Steam turbo-alternators Steam turbines Rotating electrical machinery including fractional horse-power motors Motor control gear

Period of series	Unit	Weight per 1,000	Remarks
Monthly	Index	10·33	Index comprising 98 separately weighted items of quantities delivered
Quarterly	,,		Index comprising 2 separately weighted series of value of deliveries deflated
Monthly	Tons		Deliveries
Quarterly	£ thousand		Value of deliveries deflated
			Assumed to move with Headings 331 to 349/2
Quarterly	£ thousand	2·82	Value of deliveries deflated
Monthly	Thousand sq. ft.		Comprising 3 separately weighted series; adjusted annually by value of deliveries to take account of increase in proportion of colour films, etc.
Four weekly	Thousands		
Monthly	£ thousand	5·07	Value of deliveries deflated. Employment series (Great Britain) used up to December, 1956
,,	,,	0·40	Value of deliveries deflated
,,	,,	0·54	
Monthly	Thousand B.H.P.	8·62	Deliveries. Hydraulic turbines and steam turbo-alternators treated as quarterly series
,,	Thousand kW		
Quarterly	,,		
Monthly	£ thousand	8·62	Value of production deflated
,,	,,	2·15	Value of production deflated

Standard Industrial Classification			
Order	Minimum List Heading	Industry	Series
VI (contd.)		*Series used up to December,* 1957	
	362	Insulated wires and cables	Insulated fine wires Insulated wires and cables
	363	Telegraph and telephone apparatus	Telecommunications equipment
	364	Radio and other electronic apparatus	Electronics industry (civil and defence)
			Electronics industry (defence) Gramophone records
	365	Domestic electric appliances	Electric washing machines Electric cookers Electric washboilers Electric immersion heaters Electric water heaters Other domestic electric appliances (excluding refrigerators)
	369/1	Electrical equipment for motor vehicles, cycles and aircraft	Motor vehicles
	369/2	Primary batteries	Dry cells
	369/3	Secondary batteries (accumulators)	Accumulators
	369/4	Electric lamps	Electric lamps
	369/5	Miscellaneous electrical goods	
		Series used from January, 1958	
	331	Agricultural machinery (except tractors)	Agricultural machinery (except tractors)
	332	Metal-working machine tools	Metal-working machine tools and welding machinery
	333	Engineers' small tools and gauges	Engineers' small tools and gauges
	334	Industrial engines	Industrial engines
	335	Textile machinery and accessories	Textile machinery and accessories

II—*continued*

Period of series	Unit	Weight per 1,000	Remarks
Monthly	£ thousand	31·05	Value of deliveries deflated
,,	,,		Value of deliveries deflated
Quarterly	,,		Value of deliveries deflated
Monthly	Indices		Indices comprising 8 separately weighted series of quantities produced and 5 of values produced or exported deflated
Quarterly	Index Number		Index based on value of deliveries deflated
Monthly			Comprising 3 separately weighted series
,,	£ thousand	2·81	Value of deliveries deflated
,,	Thousands		
,,	,,		
,,	,,		
,,	,,		
Quarterly	£ thousand	2·12	Value of deliveries deflated
Monthly	Index	5·63	Heading 381 is used as an index to reflect production of electrical equipment for motor vehicles
,,	Million units		
,,	£ thousand		Value of deliveries deflated
,,	Thousands		Comprising 5 separately weighted series
			Assumed to move with Headings 362, 364 and 365
Monthly	Index	1·60	This part of the engineering and electrical goods index came into use in April, 1959
,,	,,	5·95	Engineering and electrical goods index
,,	,,	4·57	Engineering and electrical goods index
,,	,,	3·28	Engineering and electrical goods index
,,	,,	5·91	Engineering and electrical goods index

Standard Industrial Classification			Series
Order	Minimum List Heading	Industry	
VI (contd.)		*Series used from January, 1958*	
	336	Contractors' plant and quarrying machinery	Contractors' plant and quarrying machinery
	337	Mechanical handling equipment	Mechanical handling equipment
	338	Office machinery	Office machinery
	339/1	Mining machinery	Mining machinery
	339/2	Printing and bookbinding machinery	
	339/3	Refrigerating machinery	Refrigerating machinery
	339/4	Space-heating, ventilating and air-conditioning equipment	Space-heating, ventilating and air-conditioning equipment
	339/5	Pumps, compressors, etc.	Pumps and industrial valves Air and gas compressors and exhausters
	339/6	Scales and weighing machinery	
	339/7	Portable power tools	
	339/8	Other machinery except electrical machinery	Food and drink machinery Packaging machinery Steel and non-ferrous metal-rolling mills Other machinery except electrical machinery
	341/1	Boilers and boilerhouse plant	Water tube boilers Shell boilers and boilerhouse plant
	341/2	Other industrial plant and fabricated steelwork	Iron, steel and non-ferrous metal works plant other than rolling mills Chemical plant Other industrial plant and fabricated steelwork

II—*continued*

Period of series	Unit	Weight per 1,000	Remarks
Monthly	Index	3·58	Engineering and electrical goods index
„	„	3·79	Engineering and electrical goods index
„	„	2·46	Engineering and electrical goods index
„	„	1·67	Engineering and electrical goods index
			Included with Heading 339/8
Monthly	Index	1·84	Engineering and electrical goods index
„	„	1·52	Engineering and electrical goods index
„	„	4·04	Engineering and electrical goods index
			Included with Heading 339/8
			Included with Heading 339/8
Monthly	Index	18·58	Engineering and electrical goods index. Includes Headings 339/2, 339/6 and 339/7
„	„	3·28	Engineering and electrical goods index
„	„	9·56	Engineering and electrical goods index

Standard Industrial Classification			
Order	Minimum List Heading	Industry	Series
		Series used from January, 1958	
VI (contd.)	342	Ordnance and small arms	Ordnance and small arms
			Ordnance and small arms
	349/1	Ball and roller bearings	Other mechanical engineering
	349/2	Precision chains	
	349/3	Other mechanical engineering	
	351/1	Photographic equipment	Photographic and cinematographic apparatus including parts and accessories Sensitized paper, films and plates
	351/2	See below	
	351/3	Spectacles, etc.	Ophthalmic lenses
	351/2	Optical instruments	Scientific and industrial instruments and apparatus
	351/4	Surgical, dental and veterinary instruments and appliances	
	351/5	Other scientific instruments and equipment	
	352	Watches and clocks	Watches Clocks including car clocks and time recorders
	361	Electrical machinery	Rotating electrical machines Switchgear and control gear Transformers for lighting, heating and power Other electrical machinery

II—*continued*

Period of series	Unit	Weight per 1,000	Remarks
Monthly	Index	22·55	Index comprising 98 separately weighted items of quantities delivered
Quarterly	,,		Index comprising 2 separately weighted series of value of deliveries deflated
Monthly	,,		Engineering and electrical goods index
Quarterly	£ thousand	2·82	Value of deliveries deflated
Monthly	Thousand sq. ft.		Comprising 3 separately weighted series; adjusted annually by value of deliveries to take account of increase in proportion of colour films, etc.
Four/five weekly	Thousands		
Monthly	£ thousand	5·07	Value of deliveries deflated
,,	,,	0·40	Value of deliveries deflated
,,	,,	0·54	
,,	Index	19·39	Engineering and electrical goods index

Standard Industrial Classification			Series
Order	Minimum List Heading	Industry	
		Series used from January, 1958	
VI (contd.)	362	Insulated wires and cables	Insulated wires and cables
	363	Telegraph and telephone apparatus	Telecommunications equipment
	364	Radio and other electronic apparatus	Electronics industry (civil and defence)
			Electronics industry (defence) Gramophone records
	365	Domestic electric appliances	Domestic electric appliances
	369/1	Electrical equipment for motor vehicles, cycles and aircraft	Electrical equipment for motor vehicles, cycles and aircraft
	369/2	Primary batteries	Primary batteries
	369/3	Secondary batteries (accumulators)	Secondary batteries (accumulators)
	369/4	Electric lamps	Electric lamps
	369/5	Miscellaneous electrical goods	Other electrical goods
VII		**Shipbuilding and Marine Engineering**	
	370	Shipbuilding and marine engineering	Naval shipbuilding and ship repair Merchant shipbuilding and ship repair Marine engineering
VIII		**Vehicles**	
	381	Motor vehicle manufacturing	Passenger cars: 1,600 c.c. and under
			Over 1,600 c.c. and not over 2,800 c.c. Over 2,800 c.c. Commercial vehicles: Under 15 cwts. carrying capacity 15 cwts. to 3 tons carrying capacity Over 3 tons to 6 tons carrying capacity Over 6 tons carrying capacity Public service vehicle chassis Wheeled tractors of 10 belt horse power and over Spares for motor vehicles

II—*continued*

Period of series	Unit	Weight per 1,000	Remarks
Monthly	Index	28·41	Engineering and electrical goods index
Quarterly	£ thousand		Value of deliveries deflated
Monthly	Indices		Indices comprising 8 separately weighted series of quantities produced and 5 of values produced or exported deflated
Quarterly	Index		Index based on value of deliveries deflated
Monthly	Number		Comprising 3 separately weighted series
”	Index	4·43	Engineering and electrical goods index
”	”	8·77	Engineering and electrical goods index
”	”		
”	”		
”	”		
”	”		
		21·66	Estimated net output in 1954, £168·2 million
Monthly	Index	21·66	
”	”		
”	”	77·79	Estimated net output in 1954, £604·0 million
Four/five weekly	Number	10·60	Engine size groupings were slightly different before 1956
”	”	4·47	
”	”	1·17	
”	”	3·07	
”	”	1·80	
”	”	1·96	
”	”	2·29	
”	”	11·55	
Monthly	”		
”	£ thousand		Value of deliveries deflated

Standard Industrial Classification			Series
Order	Minimum List Heading	Industry	
VIII (contd.)	382	Motor cycle, three-wheel vehicle and pedal cycle manufacturing	Mopeds Scooters Other motor cycles Three-wheeled motor vehicles Spares for motor cycles and three-wheeled vehicles Pedal cycles Spares for pedal cycles
	383	Aircraft manufacturing and repairing	United Kingdom Service aircraft Other aircraft and parts
	384	Locomotives and railway track equipment	Employment (Great Britain)
	385	Railway carriages and wagons and trams	Employment (Great Britain)
	389	Perambulators, hand trucks, etc.	Perambulators Bed folders Push chairs
IX		**Metal Goods not elsewhere specified**	
	391	Tools and implements	Tools and implements
	392	Cutlery	Domestic cutlery and scissors Razor holders, safety Razor blades, safety
	393	See below	
	394	Wire and wire manufactures	Steel wire rods and bars: Non-alloy Alloy Copper base alloy wire Consumption of high conductivity copper wire rods

II—*continued*

Period of series	Unit	Weight per 1,000	Remarks
Monthly	Number	1·78	
,,	,,		
,,	,,		
,,	,,		
,,	£ thousand		Value of deliveries deflated
,,	Number	2·49	
,,	£ thousand		Value of deliveries deflated
,,	Index	36·11	Indices comprising 86 separately weighted series of quantities produced and 4 of values produced or exported deflated
,,	,,		
,,	—		Adjusted for annual and public holidays
,,	—		Adjusted for annual and public holidays
,,	Thousands	0·36	Series quarterly up to December, 1956
,,	,,	0·05	
,,	,,	0·09	
		41·74	Estimated net output in 1954, £324·1 million
Monthly	£ thousand	1·93	Sales by manufacturers deflated. Series quarterly up to December, 1958
Quarterly	,,	1·60	Sales by manufacturers deflated
,,	Thousands		Sales by manufacturers
,,	,,		
Four/five weekly	Thousand tons	2·66	Input. Representing iron and steel wire and iron and steel wire manufactures
,,	,,	0·09	
Monthly	Tons	0·31	Representing brass wire and brass wire manufactures
,,	Thousand tons	0·62	Input. Representing copper wire and copper wire manufactures

Standard Industrial Classification			Series
Order	Minimum List Heading	Industry	
IX (contd.)	395	Cans and metal boxes	Tinplate consumption Aluminium consumption
	396	Jewellery, plate and refining of precious metals	Jewellery and plate
	393	Bolts, nuts, screws, rivets, etc.	Steel consumption
	399	Metal industries not elsewhere specified	Steel consumption for drop forgings, laminated springs, hollowware (excluding cans and metal boxes), metal furniture, windows, springs, needles, pins, etc. Alloyed copper products (excluding wire, copper sulphate, castings and miscellaneous uses) Despatches to consumers of fabricated aluminium for hollowware
X		Textiles	
	411	Production of man-made fibres	Man-made fibres: Continuous filament yarn Staple fibre
	412	Spinning and doubling of cotton, flax and man-made fibres	Single yarn: Cotton: Up to 26's 27's to 80's Over 80's Waste yarns Rayon and mixture yarns Doubled yarn: Cotton: Up to 26's 27's to 80's Over 80's Other yarns
	413	Weaving of cotton, linen and man-made fibres	Linen piece goods: Great Britain Northern Ireland Cotton cloths: Canvas and duck Surgical dressings Other cotton cloth Man-made fibre and mixture cloths: Tyre cord and fabric Other

II—*continued*

Period of series	Unit	Weight per 1,000	Remarks
Monthly	Tons	2·19	Input. A single quarterly series of tinplate consumption used up to December, 1958
"	"		
Quarterly	£ thousand	2·73	Sales by manufacturers deflated
"	Tons	29·61	Input. Monthly series also used
"	"		Input. Monthly series also used
Monthly	"		Input
"	"		Input
		76·63	Estimated net output in 1954, £595·0 million
Monthly	Thousand lb.	6·25	
"	"		
Four/five weekly	Million lb.	3·16	
"	"	2·87	
"	"	0·46	
Weekly	"	0·66	
"	"	1·40	
Four/five weekly	"	0·84	
"	"	0·53	
"	"	0·18	
Weekly	"	0·71	Covers part of Heading 412
Quarterly	Thousand sq. yds.	0·52	
"	Thousand linear yds.	2·07	
Four/five weekly	Million linear yds.	0·37	
"	"	0·19	
"	"	6·40	Covers Heading 422/1
"	"	0·09	
"	"	3·77	Partly input

Standard Industrial Classification			
Order	Minimum List Heading	Industry	Series
X (contd.)	414	Woollen and worsted	Woollen yarn (fibre consumed) Worsted yarn Top making Woven woollen fabrics Woven worsted fabrics
	415	Jute	Jute yarn Jute cloth
	416	Rope, twine and net	Agricultural twines Other twine, ropes and cords and lines of hard hemp
	417	Hosiery and other knitted goods	Hosiery
	418	Lace	Machine activity
	419	Carpets	Carpets
	421	Narrow fabrics	Narrow fabrics
	422/1	Household textiles and handkerchiefs	
	422/2	Canvas goods and sacks	

II—*continued*

Period of series	Unit	Weight per 1,000	Remarks
Monthly	Million lb.	2·90	Input
,,	,,	4·26	Deliveries
,,	,,	2·59	
,,	Million sq. yds.	4·11	Deliveries
,,	,,	3·65	Deliveries
Four/five weekly	Tons	1·17	Covers Heading 422/2, hence partly input
,,	,,	1·13	
Monthly	,,	0·29	
,,	,,	0.75	Deliveries
,,	£ thousand	9·82	Sales by manufacturers deflated. Adjusted quarterly by 6 separately weighted series of manufacturers' sales deflated: *Weight* Men's hose 0·63 Women's stockings 3·44 Women's ankle socks, girls' hose, children's short and three-quarter length socks 0·93 Underwear and nightwear (adults', children's and infants') 1·43 Outerwear (adults', children's and infants') including gloves 2·72 Knitted fabrics 0·67 Only quarterly series available prior to January, 1957
Quarterly	Index	1·13	Index of machine activity
Monthly	£ thousand	3·01	Sales by manufacturers deflated. Adjusted quarterly by 3 separately weighted series of quantities sold: *Weight* Wool carpets 2·83 Hair carpets 0·06 Mohair and tufted carpets 0·12 Only quarterly series available prior to July, 1957
Quarterly	,,	1·42	Sales by manufacturers deflated
			Included with Heading 413
			Included with Heading 415

Standard Industrial Classification			Series
Order	Minimum List Heading	Industry	
X (contd.)	423	Textile finishing	Yarn bleaching Yarn dyeing Piece bleaching Piece dyeing Machine printing Woollen and worsted finishing Hosiery finishing Textile packing
	429	Other textile industries	Employment (Great Britain)
XI		**Leather, Leather Goods and Fur**	
	431	Leather (tanning and dressing) and fellmongery	Leather tanning and dressing
	432	Leather goods	Employment (Great Britain)
	433	Fur	
XII		**Clothing and Footwear**	
	441	Weatherproof outerwear	Made-up clothing
	442	Men's and boys' tailored outerwear	
	443	Women's and girls' tailored outerwear	
	444	Overalls and men's shirts, underwear, etc.	
	445	Dresses, lingerie, infants' wear, etc.	
	449	Dress industries not elsewhere specified	
	446	Hats, caps and millinery	Wool and fur felt hoods

II—*continued*

Period of series	Unit	Weight per 1,000	Remarks
Monthly	Thousand lb.	0·24	
”	”	0·47	
”	Tons	0·46	
”	Thousand linear yds.	2·18	
”	”	1·93	
”	Index	1·05	Index based on Heading 414
”	”	1·00	Index based on Heading 417
Four/five weekly	”	0·18	Index based on Heading 415, hence input
Monthly	—	2·42	Adjusted for annual and public holidays
		5·24	Estimated net output in 1954, £40·7 million
Monthly	Index	5·24	Index based on 67 separately weighted series of quantities produced
”	—		Adjusted for annual and public holidays
		32·54	Estimated net output in 1954, £252·7 million
Monthly	Index	22·92	Index based on sample enquiry into sales by manufacturers deflated. Covers Heading 449
			Included with Headings 441 to 445
Monthly	Number	1·29	Sales by manufacturers

Standard Industrial Classification			
Order	Minimum List Heading	Industry	Series
XII (contd.)	450	Footwear	Boots and shoes
XIII		**Bricks, Pottery, Glass, Cement, etc.**	
	461	Bricks, fireclay and refractory goods	Refractories (bricks, etc.) Building bricks (Great Britain) Clay roofing tiles (Great Britain) Stonewear pipes (Great Britain) Other unglazed tiles including quarry tiles (Great Britain)
	462	Pottery	Glazed tiles (Great Britain) China Earthenware and stoneware Jet and Rockingham
	463	Glass	Flat glass Domestic and fancy glassware Illuminating glassware Glass containers
	464	Cement	Cement Concrete roofing tiles (Great Britain) Plasterboard (Great Britain) Plaster (Great Britain) Asbestos cement goods (Great Britain)
	469/2	Building materials, etc., not elsewhere specified	
	469/1	Abrasives	Bonded abrasives Coated abrasives

II—*continued*

Period of series	Unit	Weight per 1,000	Remarks
Monthly	Million pairs	8·33	Adjusted quarterly by 7 separately weighted series of quantities produced: *Weight* Boots and shoes: Men's 2·57 Women's 3·67 Youths' 0·36 Girls' 0·48 Infants' 0·23 Footwear with fabric uppers 0·40 Slippers 0·62 Only quarterly series available prior to July, 1957
		29·90	Estimated net output in 1954, £232·2 million
Monthly	Thousand tons	1·65	Comprising 13 separately weighted series
,,	Millions	4·81	Comprising 5 separately weighted series
,,	Thousand squares	0·36	
,,	Thousands	0·18	
,,	Thousand sq. yds.	0·15	
,,	Thousand sq. yds.	1·22	
,,	£ thousand	3·25	Sales by manufacturers deflated. Series quarterly up to December, 1956
,,	,,		
,,	,,		
,,	Index	6·51	Index of quantities produced
,,	£ thousand		Sales by manufacturers deflated
,,	,,		Sales by manufacturers deflated
Four/five weekly	Thousand gross		Comprising 6 separately weighted series
,,	Thousand tons	6·21	Partly input
Monthly	Thousand squares	0·64	
,,	Thousand sq. yds.	1·93	
,,	Thousand tons	0·64	
Four/five weekly	,,	1·29	
Quarterly	£ thousand	0·76	Sales by manufacturers deflated
,,	,,	0·30	

Standard Industrial Classification			Series
Order	Minimum List Heading	Industry	
XIV		**Timber, Furniture, etc.**	
	471/1	Sawmilling, etc.	Home grown: Hardwood Softwood Pitwood Plywood Imported: Hardwood Softwood
	472	Furniture and upholstery	Domestic furniture (Great Britain)
	473	Bedding, etc.	Mattresses, divans, bolsters and pillows
	471/2	Other woodwork for buildings	Home grown: Hardwood Softwood Imported: Hardwood Softwood
	474	Shop and office fitting	
	475	Wooden containers and baskets	
	479	Miscellaneous wood and cork manufacturers	
XV		**Paper, Printing and Publishing**	
	481	Paper and board	Newsprint Other uncoated printing and writing paper Wrappings Tissue Other paper Packaging board Other board
	482	Cardboard boxes, cartons and fibreboard packing cases	Folding boxboard delivered from mills plus imports

Period of series	Unit	Weight per 1,000	Remarks
		21·87	Estimated net output in 1954, £169·8 million
Monthly	Cubic ft.	4·42	
”	”		
Four/five weekly	Standards		Standards of 180 piled cubic feet
Monthly	Cubic metres		
”	Cubic ft.		Input
”	Standards		Input. Standards of 165 cubic feet
”	£ thousand	8·68	Deliveries by manufacturers deflated adjusted quarterly. Only quarterly series available prior to October, 1956
Quarterly	”	1·26	Sales by manufacturers deflated
Monthly	Cubic ft.	7·51	Input
”	”		Input
”	”		Input
”	Standards		Input. Standards of 165 cubic feet
		53·29	Estimated net output in 1954, £413·8 million
Four/five weekly	Tons	1·03	
”	”	2·61	
”	”	2·05	
”	”	0·35	
”	”	2·73	
”	”	1·93	
”	”	0·68	
Four/five weekly and monthly	”	4·73	Input

Standard Industrial Classification			Series
Order	Minimum List Heading	Industry	
XV (contd.)	483	Manufactures of paper and board not elsewhere specified	Consumption of newsprint by publishers Average number of selected national newspapers sold (Great Britain) Selected items of paper and board including wallpaper base, plus imports of Kraft and other machine glazed paper
	486	Printing, publishing of newspapers and periodicals	
	489	Other printing, publishing, bookbinding, engraving, etc.	
XVI		**Other Manufacturing Industries**	
	491	Rubber	Tyres and tubes Rubber for other uses (except cables)
	492	Linoleum, leather cloth, etc.	Linoleum Felt base Leather cloth
	493	Brushes and brooms	Toilet brushes Decorators' brushes Other brushes
	494	Toys, games and sports equipment	Toys and games Sports goods
	495	Miscellaneous stationers' goods	Fountain pens, ball pointed pens, mechanical and wood pencils Tissue for carbonising Inked ribbons and spools for typewriters etc.
	496	Plastics moulding and fabricating	Plastics materials consumption
	499	Miscellaneous manufacturing industries	Pianos Other musical instruments Woodpulp for transparent regenerated cellulose film Matches

II—*continued*

Period of series	Unit	Weight per 1,000	Remarks
Four/five weekly	Tons	37·18	Input. Covers part of Heading 486
,,	Number		Covers part of Heading 486
,,	Tons		Input. Covers headings 483 and 489 and 25 per cent. of 486
		21·61	Estimated net output in 1954, £167·8 million
Monthly	Number	3·81	
Four/five weekly	Tons	7·08	Input
Quarterly	Thousand sq. yds.	0·94	Sales by manufacturers
,,	,,	0·28	
,,	,,	0·52	
,,	Number	0·22	Sales by manufacturers. Comprising 2 separately weighted series
,,	,,	0·23	Sales by manufacturers
,,	,,	0·56	Sales by manufacturers. Comprising 2 separately weighted series
,,	£ thousand	1·79	Sales by manufacturers deflated
,,	,,	0·55	Sales by manufacturers deflated
,,	,,	1·09	Sales by manufacturers deflated
Four/five weekly	Tons		Input
Monthly	£ thousand		Value of deliveries deflated
Quarterly	Tons	2·38	Input
Monthly	Number	2·16	
Quarterly	£ thousand		Sales by manufacturers deflated
Four/five weekly	Tons		Input
Monthly	Million matches		

Standard Industrial Classification			Series
Order	Minimum List Heading	Industry	
XVII		**Construction**	
	500	Construction	Construction (Great Britain)
			Employment (Northern Ireland)
XVIII		**Gas, Electricity and Water**	
	601	Gas	Gas made at gas works (Great Britain)
			Coke produced at gas works (Great Britain)
	602	Electricity	Electricity generated (Electricity Boards only; Great Britain)
	603	Water supply	Employment (Great Britain)
	601-603	Construction by gas, electricity and water undertakings	Construction by gas, electricity and water undertakings (Great Britain)

II—*continued*

Period of series	Unit	Weight per 1,000	Remarks
		119·54	Estimated net output in 1954, £928·2 million
Quarterly	Index	115·96	Index comprising 3 separately weighted series of the value of work done deflated. Monthly estimate based on operatives employed also used
Monthly	—	3·58	
		48·32	Estimated net output in 1954, £375·2 million
Four/five weekly	Million therms	9·71	
”	Thousand tons	3·07	
Monthly	Million kWh	26·05	
”	—	4·69	
Quarterly	Index	4·80	Index comprising 3 separately weighted series of the value of work done deflated

APPENDIX III

Index of industrial production 1954 = 100

Price indices used to deflate value series

A list of price indices used at present in the index of production for the purpose of adjusting series in terms of money values for prices changes is given in the table below. Unless otherwise stated the indices are part of the current series of wholesale price index numbers.

Minimum List Heading	Series	Price index used	Remarks
272/1	Prescriptions dispensed (England and Wales)	Pharmaceutical preparations and pharmaceutical chemicals	Cost of ingredients deflated
	Exports of certain drugs, medicines, etc.	Pharmaceutical preparations	
272/2	Toilet preparations and perfumery	Toilet preparations	
274	Emulsion paints, other water paints, cellulose based paints, other paints and enamels, varnishes, thinners, mastics	Paint for building and decorating	This series, introduced from January, 1958, is used to supplement the more comprehensive quarterly data
331	Agricultural machinery (except tractors)	Special price index	Quantity series used up to March, 1959
332	Metal-working machine tools and welding machinery	Special price index	
333	Engineers' small tools and gauges	Special price index	
334	Industrial engines	Special price index	
335	Textile machinery and accessories	Special price index	
336	Contractors' plant and quarrying machinery	Special price index	
337	Mechanical handling equipment	Special price index	
338	Office machinery	Special price index	
339/1	Mining machinery	Special price index	
339/3	Refrigerating machinery	Special price index	
339/4	Space heating, ventilating and air conditioning equipment	Special price index	
339/5	Pumps and industrial valves	Special price index	
	Air and gas compressors and exhausters	Special price index	
339/8	Food and drink machinery	Special price index	
	Packaging machinery	Special price index	
	Steel and non-ferrous metal rolling mills	Special price index	
	Other machinery except electrical machinery	Special price index	
341/1	Water tube boilers	Special price index	
	Shell boilers and boiler house plant	Special price index	

Minimum List Heading	Series	Price index used	Remarks
341/2	Iron and steel and non-ferrous metal works plant other than rolling mills	Special price index	
	Chemical plant	Special price index	
	Other industrial plant and fabricated steelwork	Special price index	
342	Ordnance and small arms (2 quarterly series)	Special price index for mechanical engineering products Special price index for munitions	
349	Other mechanical engineering	Special price index	
351/1	Photographic and cinematographic apparatus including parts and accessories	Special price index	
	Sensitized paper, films and plates	Photographic paper and films, etc.	Annual series. Used to adjust monthly quantity series
351/2 351/4 351/5	Scientific and industrial instruments and apparatus	Special price index	
352	Watches Clocks, including car clocks and time recorders	Special price index	
361	Rotating electrical machines	Special price index	
	Switchgear and control gear	Special price index	
	Transformers for lighting, heating and power	Special price index	
	Other electrical machinery	Special price index	
362	Insulated wires and cables	Special price index	
363	Telecommunications equipment	Telecommunications equipment (G.P.O.)	
364	Electronics industry (civil) Electronics industry (defence) (Monthly) Electronics industry (defence) (Quarterly)	All engineering capital goods (2 items) Electronic input costs (Ministry of Supply) (3 items) Electronic input costs (Ministry of Supply)	These series are indices comprising 8 separately weighted series of quantities produced and 5 of values produced or exported
365	Domestic electrical appliances	Domestic electrical appliances	
369/1	Electrical equipment for motor vehicles, cycles and aircraft	Special price index	
369/2	Primary batteries	Special price index	
369/3	Secondary batteries (accumulators)	Special price index	
369/4	Electric lamps	Special price index	
369/5	Other electrical goods	Special price index	

Minimum List Heading	Series	Price index used	Remarks
381	Spares for motor vehicles	Motor vehicles spares and accessories	
382	Spares for motor cycles and three wheeled vehicles	Motor cycles	
	Spares for pedal cycles	Bicycles	
383	United Kingdom Service aircraft	Combined input costs for aircraft (Ministry of Supply) (2 items)	These series are indices comprising 86 separately weighted series of quantities produced and 4 of values produced or exported
	Other aircraft and parts	All engineering capital goods (2 items)	
391	Tools and implements	Tools and implements	
392	Domestic cutlery and scissors	Cutlery (other than razors and razor blades)	
396	Jewellery and plate	Jewellery Spoons and forks	
417	Hosiery	Hosiery and other knitted goods	
419	Carpets (monthly series)	Carpets and rugs	This series is used to supplement the more comprehensive quarterly data
421	Narrow fabrics	Narrow fabrics	
441-5 and 449	Made-up clothing	Made-up clothing	
462	China Earthenware and stoneware Jet and Rockingham	Domestic china and earthenware	
463	Domestic and fancy glassware	Domestic and fancy glassware	
	Illuminating glassware	Illuminating glassware	
469/1	Bonded abrasives Coated abrasives	Abrasives	
472	Domestic furniture (Great Britain)	Domestic furniture	
473	Mattresses, divans, bolsters and pillows	Bedding, etc.	
494	Toys and games	Toys and games	
	Sports goods	Sports equipment	
495	Fountain pens, ball pointed pens, mechanical and wood pencils	Pens and pencils	
	Inked ribbons and spools for typewriters, etc.	Other stationers' goods	
499	Other musical instruments	Pianos	
500	Construction (Great Britain) (3 items)	Construction cost indices (Ministry of Works) (3 series)	
601-3	Construction by gas, electricity and water undertakings (Great Britain) (3 items)	Construction cost indices (Ministry of Works) (3 series)	

APPENDIX IV

Special indices used in the index of industrial production

Some of the series listed in Appendix II are themselves shown as index numbers. The most important of these are described in the following paragraphs.

Shipbuilding and ship repairing and marine engineering. Ships take many months to build. Consequently, no satisfactory index can be based on the production of finished ships during each month, and it is essential to take account of changes in the amount of work in progress.

For merchant shipbuilding and repair, the basic item in the index is the building of merchant ships of 100 gross tons and over. Estimates are made at the time the work commences of the length of time required by each ship for completion. The estimates depend partly on the time quoted by the builders, partly on previous experience of the particular shipyard, and partly on expectations regarding the supplies of raw materials and other factors of production. A certain amount of judgment necessarily enters into these estimates, but they have generally turned out to be reasonably accurate.

Figures have also been collected, in recent years, showing the typical amount of work in man-hours which is done on different types of ships in each month of construction. For every ship, therefore, estimates can be made of proportionate amounts of work undertaken in each month of construction. These proportions are multiplied by the gross tonnage of the ship and also by a weight based on the relative value per ton of the particular type of ship, and for each month a total is obtained covering all ships (100 gross tons and over) then under construction. The total of the results divided by the number of operatives employed on merchant shipbuilding during the month by the firms building ships of 100 gross tons and over gives a measure of output per man for the month. This figure multiplied by the total number of operatives in the industry engaged on building merchant ships of all sizes and expressed as an index with 1954 = 100 gives an index of the total merchant shipbuilding output during the month.

Repair work on ships is of an extremely varied character and difficult to measure precisely. It is therefore assumed that the changes in output per man in repair work are the same as in shipbuilding. This is a reasonable assumption, since shipbuilding and repair work are normally done side by side in the same firm by the same operatives. An index for merchant repairs is therefore obtained by multiplying the building index by the ratio of the numbers engaged on merchant repair to the numbers on merchant building.

As marine engineering is classified with shipbuilding and ship repairing as one industry, and is often done in the same yard, it is again assumed that changes in output per man are the same as in shipbuilding. An index is therefore obtained by multiplying the building index by the ratio of numbers engaged on marine engineering to the numbers engaged on merchant shipbuilding. The three index numbers are then combined to give one figure for merchant shipbuilding, ship repairing and marine engineering.

For naval shipbuilding a separate calculation is made, covering work done by private firms and by the Royal Dockyards. For contract work done by private firms, the same methods have been used as for merchant work. For the Royal Dockyards, production is based on man-hours worked, with special adjustments necessitated by the unique character of the work.

Engineering and electrical goods. The new scheme of output statistics for the majority of the industries in Order VI, Engineering and electrical goods, was started in January, 1958. Under this scheme the index of production for these industries is compiled in a manner quite different from that used up to the end of 1957. The series and weights used up to the end of 1957 and those used from the beginning of 1958 are shown in Appendix II. The calculation of the index from the beginning of 1958 provides for the preservation of continuity with the series used from 1954 until the end of 1957.

Under the new scheme each establishment (except the smallest) makes a return of all its products on a single form. The form shows the total value of deliveries during the period covered by the return, broken down under a number of broad headings, one or more of which represent the characteristic product or products of each industry allotted a Minimum List Heading in the Standard Industrial Classification; separate headings are not always provided for the products of sub-industries. The Minimum List Headings covered by the new statistics are 331-341, 349, 361, 362, 365 and 369. Monthly returns are made by a sample of establishments including all the largest and a proportion of the medium and small establishments, and quarterly returns are made by the rest.

The monthly index is compiled for this group of industries as a whole from estimates of the total value of their deliveries, adjusted to eliminate the effects of price changes. Each quarter, the quarterly returns are added to the returns for the three months of the quarter and separate indices are compiled for Minimum List Heading industries and for some sub-industries, from the total value returned under the separate headings on the form after adjustment for price changes. These are combined with the weights shown in Appendix II and the three-monthly indices prepared from sample data are adjusted, if necessary, to produce the same average as this quarterly index.

The agricultural machinery (other than tractors) industry was not brought into this scheme until April, 1959.

For some industries (notably Sub-heading 349/3, other mechanical engineering and Sub-heading 369/5, miscellaneous electrical goods) no indicators of output are available in the earlier period. The difference between the weights for industries used up to the end of 1957 and those used subsequently arises from the imputation of the weights for these industries in the earlier period to the indicators for other industries in Order VI.

Munitions. Of the stores acquired for the armed forces, some are the same kind as civilian products. These include passenger cars, commercial vehicles, clothing and textiles and the series used to represent the production of them in the index cover both production for the armed forces and for civilian use. Other stores acquired for the armed forces are more specialised items of defence equipment and include explosives, ammunition, weapons and associated instruments, armoured fighting vehicles, radio and other electronic apparatus, warships and military aircraft. Altogether over 160 series have been used in the index of industrial production to represent the production of specialised defence equipment.

The series for propellants and explosives is used as an indicator in Chemicals and allied industries while the treatment of naval shipbuilding, radio and other electronic apparatus for defence purposes and defence aircraft are separately described. The remaining 100 items of specialised defence equipment are brought together in a *munitions index* which is used as an indicator for the ordnance and small arms industry and a small part of the scientific instruments industry. These items are combined on the basis of the gross value of deliveries each month at 1954 prices and their total value in each month is expressed as a percentage of the monthly average value of deliveries in 1954. For new items, that is, items which have come into production since 1954, the prices which would have obtained in 1954 are estimated.

Electronics production. The defence portion of the index for the electronics industry covers the production of specialised defence equipment including (deflated) expenditure on research and development which accounts for a significant proportion of the work done by the industry for the armed forces. The civilian portion of the index covers consumers' goods such as radio receivers, television sets, radiograms and electrically amplified gramophones; electronic capital equipment (at present represented by the deflated value of exports but ultimately it is hoped to use quarterly value of production data); and cathode ray tubes and other valves sold separately as spares and replacements and valves exported. The index is designed to reflect work done on complete sets and equipments and on parts without the duplication which would arise by counting a valve as a valve and again as an element in a complete set.

Aircraft. The defence portion of the index is made up of sub-indices for airframes, engines (quantities valued at constant prices) aircraft repairs, engine repairs and aircraft equipment and instruments (expenditure deflated) together with deflated research and development expenditure (including that on guided weapons) incurred on behalf of the armed forces. The civilian portion covers all other complete aircraft (quantities valued at constant prices) and the deflated value of the exports of new engines and parts, an activity which has grown quite rapidly in recent years; the export figures are put back one month to allow for the time lag between production and export. On account of the increased complexity of modern aircraft, which has vitiated the cost and weight relationship which formerly existed, airframe structure weight has been abandoned as a means of measuring work done in producing non-military aircraft.

Clothing. The index is compiled from monthly returns of sales made by a sample of manufacturers in the tailoring, dressmaking, overall, shirt and underwear industries. Up to the end of 1958 the sample covered between 200 and 250 firms, stratified according to size. At the beginning of 1959 the sample was strengthened and it now covers some 600 firms whose sales account for about half the total sales in these industries.

Leather, tanning and dressing. The index for this industry is calculated monthly on the basis of 67 series of quantities produced, each weighted separately. The series cover all production in the leather, tanning and dressing trades. In general, the weights used are proportional to average gross values in 1948. Much of the production of tanners, however, is passed to the dressing section of the industry for further processing. Accordingly, to avoid over-weighting items going through both sections of the industry, gross selling values are used for weighting the products of the tanners while estimates of net output representing the value of work done by the dressers are applied to the products of the dressing section.

Construction. The indices for the constructional industries are compiled from figures of the value of output deflated for changes in cost. The output figures are obtained from quarterly enquiries covering the output of contractors in the constructional industries and the output of men employed on construction work by Government Departments and by local authorities; the value of opencast coal is included.

In calculating the index of production, work carried out by the industry is divided into three classes; new housing, new work other than housing, and repair and maintenance work; and separate indices are prepared for each. The separate indices are then combined with weights proportional to the value of the net output in each class of work in 1954. In this way account is taken of differences between the ratio of gross to net output for the different classes of work. The weights used are:

New housing	31
New work other than housing	29
Repair and maintenance	40

A description of the method of estimating building costs for new work was published in the Board of Trade Journal for 12th May, 1956. This is adapted to provide special cost indices including a cost index for repair and maintenance work; these special cost indices make allowance, for example, for the fact that building materials are purchased in advance of work being done.

Output figures are collected for calendar quarters. For the purpose of computing a total index for all industries for calendar months estimates of monthly output in the constructional industries are provisionally made, mainly on the basis of employment figures which are obtained monthly; these estimates are revised when the quarterly output figures become available. For the constructional industries, however, only the quarterly indices are published.

Separate indices are computed for work done by the constructional industries (Order XVII), and for building work done by gas, electricity and water undertakings (Order XVIII). These indices relate only to Great Britain. For Order XVII as a whole the index of output described above is combined with an index of building activity in Northern Ireland which is based on employment figures. The index of building work done by gas, electricity and water undertakings is included in Order XVIII along with the indices relating to the principal activities of these industries. Building work done by other public utilities is not included in the index of industrial production.

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